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Pioneer New England Bryologists — A Prosopography

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PIONEER NEW ENGLAND BRYOLOGISTS - A PROSOPOGRAPHY

Anna M. M. Reid[1]

Introduction

Very little has been written about the development of bryology in the United States and Canada. This was noted by William C. Steere (204) in the introduction to his review, "North American Muscology and Muscologists - A Brief History." He says:

> ...Dr. E. D. Rudolph summarized in an eight page résumé the history of bryology and lichenology in this country from its very beginning, as a single chapter of Ewan's "A Short History of Botany in the United States," [(178)] ...

Even after the publication of Steere's review, which covers only muscologists not hepaticologists, it was apparent that there was room for additional research. Only the contributions of three of the thirty-three persons included in the present paper, A. L. Andrews, A. J. Grout and G. E. Nichols, were covered in depth by Steere, although the names of other bryologists included here are in his list of "North American Muscologists and Collectors."

Connecticut is the only New England state to have a publication that included a list of both mosses and hepatics, plus a key for their identification (88). This work by A. W. Evans and G. E. Nichols also included a short history of bryology in Connecticut (pp.25-29). For Rhode Island, there is a list of both mosses and hepatics (pp. 59-69) in *Providence Franklin Society - Plants of Rhode Island* (42) by J. L. Bennett. Alexander W. Evans published a series of articles entitled "Notes on New England Hepatics" (189). In 1923 he published a "Second Revised List of New England Hepatics" which covers the entire region by state (86). For Massachusetts, Frank Hilferty

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[1]22 Burroughs Road, Lexington, Mass., 02173.

has assembled a paper, "Mosses of Massachusetts. A County Catalogue with Annotations" (116). There are no state-wide lists of mosses or hepatics for Maine, New Hampshire and Vermont.

The lives of thirty-three bryologists and bryological collectors, who at some point in their lives contributed to our knowledge of New England mosses and hepatics, are surveyed in this paper. These individuals are all now deceased. Information from bryophyte packets in the New England Botanical Club Herbarium and the Farlow Herbarium (both housed at Harvard University) was utilized. Other names were found in bryological and botanical journals that cover the New England area. The selection of these thirty-three people was the subjective choice of the author.

In each biography contributions of the individual are reviewed, and, if known, the location of his/her herbarium is given. The bibliography includes the designation "portrait" after any entry which includes a picture of the bryologist. In some cases these are not formal portraits, but rather are photographs taken in the field. There is also a list of the bryologists whose portraits are included in the Hunt Botanical Institute's Portrait Collection (33) or in Zander's list of portraits published in *The Bryologist* (225).

Sources such as Barnhart (38) and Day (72) are not included in the references at the end of the individual biographies, although these works were used as general references. However other sources of information used to prepare the biographies are listed at the end of each individual biographic sketch. When a quote or a fact is unique to an individual source, it is cited at the appropriate place in the text.

Apart from university and museum affiliated scientists, most American bryologists have had other vocations because bryology in the nineteenth and early twentieth centuries was not an established professional field of study. Some bryologists were broadly trained as botanists, but most were amateurs who did not have a formal botanical background but who enjoyed collecting and studying these plants.

John Alpheus ALLEN (1863-1916)

John Alpheus Allen was born on 19 October 1863 in Hebron, Maine. He was one of three sons of Oscar Dana and Fidelia (Totman) Allen. His preparatory training was at New Haven, Conn., High School. John shared his father's interest in bryo-

phytes and at the age of fourteen contributed several species, especially pygmy mosses, to the *Berzelius Catalogue* (44). This booklet was a list of the plants growing without cultivation in the vicinity of Yale College and was prepared mostly by the students of the Sheffield Scientific School with the supervision and assistance of D. C. Eaton (q.v.).

John Alpheus Allen attended Yale College where his father was Professor of Analytical Chemistry and Metallurgy. He received the prize for the best entrance examination and, in his junior year, prizes for chemistry, mathematics and physics. While an undergraduate he continued his interest in botany and made journeys to the Gaspé and Labrador during two summer vacations. Yale awarded him a Ph.B. in 1883 and he spent the following year at the Sheffield Scientific School doing graduate work in chemistry.

His first position was as assistant to the Curator of Metallurgy at the National Museum in Washington, D.C. Within a year an attack of malaria (18) forced him to leave his job, and he moved to California for a short time. After that he was employed as a chemist in metallurgical plants in Ohio and Virginia. Next he served as an assistant to Sereno Watson at the Gray Herbarium in Cambridge, Mass. During 1891 his health deteriorated, and for the next eight years he was unable to work in industry. During this interval he spent some time with his family in Maine and in the state of Washington. In 1893 two publications based on his work at the Gray Herbarium appeared. One is a *Check-list of the Plants of Gray's Manual* (1) and the other is a bibliography of Sereno Watson's botanical publications (96).

In 1899 he returned to work at a chemical plant in Philadelphia and later took a position with a firm in Ohio. Due again to ill health he moved to Oregon in 1912 and there he began to collect and record molluscs. He published several articles in the *Nautilus*, a conchological journal (18).

John Alpheus Allen never married. He died on 5 June 1916 by accidental drowning at Manzanita, Oreg., where he had been living for about a year and where he is buried.

The New England collections of both Oscar Dana Allen (q.v.) and John A. Allen, about three thousand specimens, are deposited at the New York Botanical Garden. His father was also involved in collecting for the exsiccata, *Mosses of the Cascade Mountains, Washington. Collected by J. A. Allen. Num-*

bers 1-147. Cambridge, Massachusetts (Botanical Supply Company) 1900 (184) John Alpheus Allen's contributions to New England bryology date back to his high school and college days and are the first collection records for many Connecticut mosses and hepatics. (1, 18, 44, 96)

Oscar Dana ALLEN (1836-1913)

Oscar Dana Allen, the son of Alpheus and Hannah (Seabury) Allen, was born 25 [24] February 1836 in Hebron, Maine. He prepared at Hebron Academy and graduated in 1861 from the Sheffield Scientific School of Yale University where he took the course in chemistry. On 17 December 1861 he married Fidelia Totman at Clinton, Maine. In 1870 he returned to Yale as an instructor in analytical chemistry, and in 1871 he received a Ph.D. from that institution. That same year he was appointed Professor of Metallurgy and Assaying at Yale. Two years later he was given the Chair of Analytical Chemistry and Metallurgy. Professor Allen's professional research was done chiefly on cesium and rubidium and the results were published mainly in the *American Journal of Science*. He also edited and revised the American edition of Fresenius' *Quantitative Analysis* in 1881. Oscar Dana Allen was also a linguist and was especially interested in the study of obscure languages. In 1884, due to ill health, he resigned from his teaching position at Yale and moved to California.

During his tenure at Yale, Allen was a devoted student of bryology and he associated with Professor Daniel Cady Eaton (q.v.), the botanist at Yale. He also corresponded with such prominent bryologists as Austin, James, Lesquereux and Rau. He and his son, John A. Allen (q.v.), shared an interest in bryophytes and they did extensive field work together in Connecticut. Nichols (152) credits Oscar Dana Allen with adding seventy-five species of mosses and hepatics to the documented Connecticut flora, twelve of which had not been re-collected at the time of O. D. Allen's death. Two of the species collected by him in Connecticut have been named in his honor, Thuidium allenii Aust. (35) and Fontinalis allenii Card. ex. Nich. (88).

He also collected in other parts of northeastern North America, and in New England he worked in Maine and the White Mountains of New Hampshire. Among his discoveries is the only known New England station for Brachydon trichodes (Web.) Nees, Hornsch. & Sturm. in Tuckerman's Ravine on Mt. Washington, N.H.

Nichols (152) also remarks that Allen was a "thorough and painstaking student of the bryophytes" and had added "critical"

notes to many of his specimens. The moss herbarium assembled by the Allens while they were residents of Connecticut, about three thousand numbers, was purchased by the New York Botanical Garden.

As previously stated, Allen resigned from Yale in 1884 due to ill health and moved to California. In 1889 he removed to the state of Washington. After some years of collecting western flowering plants for the Gray Herbarium, he returned again to the study of mosses and prepared, with his son, John Alpheus Allen (q.v.), an exsiccata, *Mosses of the Cascade Mountains, Washington.* Various bryophytes collected by him have also been distributed in the exsiccatae of Austin, Grout and Holzinger.

Oscar Dana Allen died at Ashford, Wash., on 19 February 1913 [? 5 March 1913]. His home site in Washington is now within the limits of the Mt. Rainier National Park. (15, 35, 44, 88, 152, 216, 224)

Albert LeRoy ANDREWS (1878-1961)

Albert LeRoy Andrews was born 27 December 1878 on the family farm in Williamstown, Mass. His parents were Albert Barney and Abbie (Lindley) Andrews. Albert Barney Andrews traced his ancestry back to John and Mary Andrews, early seventeenth century settlers of Connecticut. After attending local public schools and graduating from Williamstown High School, young Andrews enrolled in Williams College, Williamstown, Mass. He was the youngest member of the Class of 1899. During his boyhood he became interested in plants and this lasted throughout his life. In addition to being an excellent scholar he was also a member of the varsity baseball and football teams during his undergraduate years. Andrews received a B.A. (1899) and an M.A. (1902) from Williams College. He taught in preparatory schools in Vermont and Pennsylvania (1899-1902) and spent a year in graduate study at Harvard University (1902-1903; M.A., 1903). While at Harvard Andrews developed an interest in the comparative and historical philology of the Germanic languages. He was an Instructor in German at the University of West Virginia (1903-1904) and at Dartmouth College (1904-1905). Andrews studied in Europe (1905-1908) at Berlin, Kiel, Copenhagen and Christiania [now Oslo] and received a Ph.D. from the University of Kiel in 1908.

He then began his long association with Cornell University, Ithaca, N.Y., as a Teaching Fellow in German (1908). He became an Instructor in German and Scandinavian languages (1909-1918),

Assistant Professor of German (1919-1930), and Professor of Germanic Philology (1931-1946). Professor Andrews was also Chairman of the German Department (1924-1928). In 1946 he retired with the title of Professor of Germanic Philology Emeritus.

As a youth Andrews studied the local ferns and orchids and later developed an interest in mosses and hepatics. His earliest publication was the first of five articles in *Rhodora* (1902-1954) on the bryophytes of the Mt. Greylock region, in and near Williamstown, Mass. These are his only publications that deal specifically with New England mosses and hepatics (203).

Andrews is to be especially remembered for his scholarly studies of the taxonomically difficult groups of mosses that comprise the Sphagnaceae and Bryaceae. He published extensively on these two groups mainly in *The Bryologist* and in *Rhodora.* He revised Sphagnum for the *North American Flora* (5) and prepared the monographs on the Bryaceae and Mniaceae for Grout's *Moss Flora of North America, North of Mexico* (105). His knowledge of the bryophyte flora of the Ithaca, N.Y., region has been preserved in the useful booklet he wrote on the mosses and hepatics of the Upper Cayuga Lake Basin, N.Y. (6).

During his entire tenure at Cornell University, Andrews had a desk in the Department of Botany, and he contributed his time to the curation of the bryological collections. In World War I he served as a consultant to the Canadian and American Red Cross on the identification of Sphagnum species used in surgical dressings (1916-1918). In 1953 Professor Andrews was named Honorary Curator of the Bryological Collections of the Wiegand Herbarium of Cornell University. His personal herbarium has now been added to this collection.

Andrews was president (1922-1923) of the Sullivant Moss Society (now the American Bryological and Lichenological Society) and associate editor of its journal, *The Bryologist* (1938-1949). His interest in ornamental plants, which he raised in his greenhouse, is reflected in his lifetime membership in the Massachusetts Horticultural Society. Correspondence in several languages and disciplines also reflect his wide range of interests. He was especially helpful to beginning students in bryology in the matter of specimen identification. Professor Andrews found time also to be informed on national and world events. He is known to have maintained a serious interest in music. At the time of his death he was Chairman of the Board of Trustees of the First Unitarian Church, Utica, N.Y.

On 28 January 1924 in Utica, N.Y., A. LeRoy Andrews, as he signed himself, married Olga Sophia Wunderli. They reared four natural children and an adopted niece. Mrs. Andrews passed away in Ithaca, N.Y., in 1960. Professor Andrews died 1 November 1961 also in Ithaca. At the time of his death he was still active in the field of bryology. (3, 5, 6, 23, 105, 187, 203, 204, 222, 225)

James Lawrence BENNETT (1832-1904)

James Lawrence Bennett was born on 8 April 1832 in Providence, R.I. He was educated in the public schools of Providence and was prepared to enroll at Brown University, but he was unable to do so. He became a manufacturing jeweler, but devoted his leisure time to the study of natural science and was said to have been well read in the field.

Bennett collected both vascular plants and cryptogams in Rhode Island. He also made ten trips to the White Mountains and a few to northern Vermont. In 1888, under the auspices of the Providence Franklin Society, he published a flora of Rhode Island that included the bryophytes (42). In 1880 he gave his flowering plant specimens to Brown University, and he was named Curator of the Herbarium of Brown University in 1890. In 1891 he was given an honorary B.A. by this institution and named Curator of the Herbarium and the Museum of Economic Botany at Brown. He held this position until 1894.

In 1901, Mrs. Annie Morrill Smith, then co-editor (with Abel J. Grout q.v.) of *The Bryologist* purchased "a large part if indeed not all of Mr. Bennett's cryptogams..." She goes on to say (196):

> ...Mr. Bennett was evidently very fond of his collections, often referring to them in his letters as his little children, and he gave them into my keeping with the injunction to "love as well as care for them." ...

James Lawrence Bennett died 30 April 1904 in Hartford, Conn. Mrs. Smith eventually presented her collection of 20,000 mosses and lichens to the Brooklyn Institute of Arts and Sciences (26). The University of Michigan is also reported to have a collection of Bennett cryptogams (140).

Mr. Bennett's major contribution to New England bryology is the publication of the then known bryophyte flora of Rhode Island. (26, 42, 62, 140, 174, 196)

Edward Blanchard CHAMBERLAIN (1878-1925)

Edward Blanchard Chamberlain, son of Charles Edwin and Margaret J. (Blanchard) Chamberlain, was born on 24 July 1878 in Bristol Mills [now Bristol], Maine. Edward was an only child and he never married. His early schooling was at home and later he attended preparatory school at Lincoln Academy, New Castle, Maine. He studied at Bowdoin College (1895-1899) and was granted an A.B. in 1899.

Chamberlain began collecting flowering plants in preparatory school and continued this activity at Bowdoin. In 1896 he met Professor J. Franklin Collins (q.v.) at a Josselyn Botanical Society meeting. This and later field trips together definitely interested Chamberlain in mosses and in Brown University. After graduation from Bowdoin he enrolled at Brown. During this time he became better acquainted with J. F. Collins who had first interested him in mosses. In 1899 Collins gave a collection of mosses he had made on Mt. Katahdin, Maine, to Chamberlain for study. Chamberlain determined these plants and presented this work for credit toward an A.M. This degree was granted to him by Brown University in 1901.

Edward Chamberlain was employed as a teacher of the sciences and Greek at Oak Grove Seminary, Vassalboro, Maine, a Friends School, during the academic year (1901-1902). This was the start of his secondary school teaching career which he actively pursued until three days before his death. In the summer of 1902 he moved to the University School in Washington, D.C., where he was an instructor in mathematics and German. He remained there until 1906 when he moved to New York City's Sachs Collegiate Institute later known as The Franklin School for Boys. There he taught science and mathematics and later served as Senior Master.

"Ed," as he was known to his friends, belonged to many botanical groups. In 1895, at the age of seventeen, he was a founding member of the Josselyn Botanical Society. The Sullivant Moss Club (later the Sullivant Moss Society and now the American Bryological and Lichenological Society) counted him as a charter member, and he served as president (1905-1907), treasurer (1913), and secretary-treasurer (1914-1915). Edward Chamberlain was elected to membership in the New England Botan-

ical Club on 4 November 1898. He was also an active member of several other botanical and natural history societies.

He published his own drawings, numerous obituaries and biographical articles in *The Bryologist, Rhodora,* and other botanical journals. Several new species and varieties were described by him. Abel J. Grout (q.v.) named the genus Chamberlainia [included now in Brachythecium] in his honor (106).

Annotation slips dated 1925 indicate the inclusion of part of Chamberlain's herbarium of flowering and non-flowering plants in the New England Botanical Club Herbarium. His collection of books on bryological subjects, manuscripts and drawings were also given to the Club. Five thousand of his bryophytes are also incorporated in the general collection at the Farlow Herbarium. His collections are an important record of the New England bryophyte flora, especially that of Maine.

Mr. Chamberlain died from pneumonia on 2 February 1925 in New York City. A letter in *The Bryologist,* inspired by the death notice in *The New York Times,* records the feelings of Sumner Blakemore of Rye, N.Y., with whom Chamberlain had enjoyed some Maine summers (40):

> "Ed" Chamberlain, as he was familiarly known, had one great hobby, the study of mosses. Last summer [1924] we happened to mention to him one day that we had seen at the entrance to a cave on Martin's Point, a moss of a peculiar green iridescence [Schistostega pennata (Hedw.) Web. & Mohr]. I shall never forget the fire of enthusiasm that sparkled in his eyes. It was, he thought, a moss he had been looking for for 20 years. A hastily arranged trip to the cave proved this to be the case. So it was this moment of pleasurable excitement that gave me my lasting memory of a true friend. A great teacher, he has gone to "The Great Teacher."

(21, 40, 133, 138, 154, 185, 187, 225)

James Franklin COLLINS (1863-1940)

J. Franklin Collins was born 29 December 1863 in North Anson, Maine. His family moved to Providence, R.I., in 1873 and

he was educated in the grade and high schools there. He was a silver worker, designer, and embosser at the Gorham Manufacturing Company in Providence from 1879 to 1898.

Collins studied plants, especially mosses, as an avocation. He soon came in contact with Prof. W. Whitman Bailey of Brown University who gave him technical assistance in this pursuit and opened the herbarium to him as a further help. In 1894, while still employed by Gorham, he was appointed Curator of the Olney Herbarium at Brown (1894-1911). In 1899 he left the employ of the Gorham Company and served as Instructor in Botany at Brown (1899-1905). In 1905 he was appointed an Assistant Professor and in 1906, upon the retirement of Professor Bailey, he took on the additional responsibility of Department Head, both of which functions he performed until 1911. In that year Brown University conferred an honorary Ph.B. on him.

By 1907, J. Franklin Collins had taken up a new interest, plant pathology, and, while still teaching at Brown (1907-1911), he became successively Collaborator, Agent, and Special Agent for the United States Office of Forest Pathology. When the United States Department of Agriculture set up an Office of Forest Pathology at Brown University in 1913, Collins was put in charge of it and was subsequently appointed Senior Pathologist-in-Charge. At the same time, he continued to build up his own herbarium and to serve as Curator of the Olney Herbarium. Until his retirement from government service in 1933 he was also Demonstrator and Lecturer in Botany at Brown, both largely honorary positions.

Collins was a skilled laboratory worker and among his contributions during the first decade of publication of *The Bryologist* are articles on herbarium and laboratory techniques. Rhode Island plants were his specialty, but he also collected elsewhere in New England, especially in Maine with fellow New England Botanical Club members. Articles in *Rhodora* document some of his additions to the Maine flora. He authored about one hundred articles, one-fifth on mosses and another one-fifth on the Chestnut Blight. Collins was a charter member of the Sullivant Moss Society and the first vice-president. He was also a member of the New England Botanical Club and served as president at one time. Collins also served a term as president of the Rhode Island Field Naturalist Club.

Professor Collins was a skilled photographer and bookbinder. As a result of his expertise in shade tree care techniques, he is known as the Father of Modern Tree Surgery.

J. Franklin Collins, as he always signed himself, never married. He passed away on 14 November 1940 at Cranston, R.I., after a long illness. He gave his herbarium to the New England Botanical Club in 1938. Many of his specimens are also preserved in the Farlow Herbarium. (24, 59, 60, 92, 137, 198, 199)

Dennis COOLEY (1787-1860)

Dennis Cooley, of Scottish descent, was born in South Deerfield, Mass., on 18 February 1787. He was the son of Eli and Chloe (Allen) Cooley. He studied medicine with Dr. S. W. Williams. He also graduated from the Medical College of the Berkshires. At first, he practiced in his home town and then for three years (1822-1825) at Monticello, Ga. In 1827 he set up a medical practice at Washington, Macomb County, Mich. In 1836 he was appointed the postmaster and served the community in both capacities until a year before his death. His first marriage was to Elizabeth Anderson of Deerfield, Mass. They were the parents of two daughters, both of whom died young. His second marriage was to Clara Andrews of Macomb County, Mich. in 1836.

Quotes from two of Dr. Cooley's contemporaries in Deerfield tell of the way they started their botanical studies. About 1816, Amos Eaton had been lecturing on botanical subjects in the Amherst area and Edward Hitchcock became acquainted with him (121):

> ...I always regarded him [Amos Eaton] as the chief agent of introducing a taste for these subjects in the Connecticut Valley. ... Dr. Stephen W. Williams, Dr. Dennis Cooley and myself, all of Deerfield, took hold of mineralogy and botany with great zeal. Dr. Cooley and myself collected nearly all the plants, phenogamous and cryptogamous, in the Valley. Dr. Cooley became an excellent botanist and even to his death in Michigan pursued the subject with zest.

Dr. S. W. Williams recalled (221):

> ...I became enamoured with the study of botany, and about the year 1816, in connec-

> tion with Edward Hitchcock, now President of Amherst College, and Dr. Dennis Cooley, now of Michigan, who was then a student in the office of my father and myself. Nearly one thousand species were found within the borders of this town (Deerfield) in a single season, including those which were naturalized. Extensive herbariums were formed from these and those of Dr. Cooley and Dr. Hitchcock were among the earliest and most valuable in the country. ...

Orthotrichum stellatum Brid., collected by Cooley in South Deerfield, Mass., before 1820, was sent to Bridel by John Torrey and described as a new species in Volume One of Bridel's *Bryologia Universa...* in 1826 (49). Not until after Cooley's death did American bryologists realize that what they had called Orthotrichum strangulatum Sull. [= Orthotrichum stellatum Brid.] in eastern North America was, in reality, Cooley's plant. Hypnum cooleyanum Spreng. in A. Eaton, nomen nudum (81), description provided later in (82) [= Callicladium haldanianum (Grev.) Crum], collected by Cooley in Deerfield, Mass., was named in his honor by Kurt P. Sprengel. Many years later bryologists realized this plant was the same as an European species already described.

Cooley was an ardent field botanist, and by the time of his death he had acquired one of the largest private herbaria in the United States (39). He died in Washington, Mich., on 8 September 1860, and in 1863 his widow presented the collection to Michigan Agricultural College (now Michigan State University). Some of his material is also preserved in the Herbarium of Wellesley College (217).

Dennis Cooley was important as an early collector of Massachusetts bryophytes and contributor to Edward Hitchcock's (q.v.) survey of the natural resources of the Commonwealth. (33, 37, 39, 49, 81, 82, 121, 217, 221)

Clara Eaton CUMMINGS (1855-1906)

Clara Eaton Cummings was born on 13 July 1855 in Plymouth, N.H. She was a daughter of Noah C. and Elmira G. Cummings. After attending local schools and New Hampshire Normal School in Plymouth, N.H., she entered Wellesley College as a student in 1876 just one year after the opening of the college. Miss Cummings was a non-graduating member of the Class of 1880 (34).

She was interested in botany and was given the title of Curator of the Museum (1878-1879). From 1879 to 1886 she was an instructor in Botany. Clara Cummings studied at the University of Zurich (1886-1887) under Arnold Dodel. After this she toured the botanical gardens in Paris, Brussels and Geneva. Upon her return to Wellesley in 1887, she was appointed Associate Professor of Cryptogamic Botany and in 1905 Hunnewell Professor of Cryptogamic Botany and temporary Chairman of the Department. Due to illness she was relieved of administrative duties in 1906, but retained the title Hunnewell Professor of Cryptogamic Botany.

According to Bruce Fink (93), Clara Cummings had an "extensive knowledge" of mosses before she began the study of lichens for which she is now better known. In 1885 she prepared a catalogue of the mosses and hepatics of North America north of Mexico (64, 65). For the Middlesex County, Mass., *Flora* (67) she furnished new localities and moss species not represented among the collections of others, and prepared the lists of Musci and Hepaticae in this work. She also issued two sets of mosses that she called exsiccatae, *New England Mosses* and *Mosses of North America.* Both of these sets contain unnumbered specimens. The earliest collection date in the *New England Mosses* is 1880. Later in her career she was well known as both lichenologist and educator.

Miss Cummings was an active member and an officer in a number of botanical and natural history societies. Her early distribution of New Hampshire and Massachusetts bryophyte collections plus her influence on the development of botanical education at Wellesley College give her a place among important New England bryologists.

Clara Cummings never married. She died on 26 [28] December 1906 in Concord, N.H. She sold her bryophyte collection to G. G. Kennedy (q.v.) and it is now preserved at the Farlow Herbarium. Her lichen herbarium is housed at Wellesley College as a separate collection. (14, 33, 34, 55, 64, 65, 66, 67, 72, 93, 219, 225)

Elizabeth Marie DUNHAM (1872-1966)

Elizabeth Marie Pennell was born in Portland, Maine., on 22 August 1872. She lived there until 1892 when she moved to Boston, Mass. On 14 September 1898, in Boston, she married Horace Clifton Dunham, an upholsterer. They resided in the Auburndale (1898-1912) and Waban (1912-1922) sections of Newton,

Mass. In 1922 they moved to Wellesley, Mass., where she lived until her death on 17 November 1966.

Mrs. Dunham received her early instruction in bryology from C. J. Maynard (q.v.) and W. Gerritson (q.v.). Her name first appeared in the list of members of the Sullivant Moss Society in 1905 and continued on the published lists up to and including 1963. Her offerings appeared frequently in the Exchange Department listings in *The Bryologist* whereby members of the Sullivant Society Exchange Department offered bryophytes to other members in return for a self-addressed stamped envelope. Most of the Dunham collections were from Maine where she frequently spent summers in the vicinity of Rangely. She also published a number of short articles in *The Bryologist*. The last was a review of an article on Iowa mosses published in this journal in 1929.

Elizabeth Marie Dunham, as she signed her correspondence, wrote a book, *How to Know the Mosses - A Popular Guide to the Mosses of the Northeastern United States*, published in 1916. In it she gives keys to eighty genera and short descriptions of over 150 species. It is illustrated with line drawings by the author. She intended the book for the study of mosses in the field and the keys to leaf and capsule characters do not require the use of a hand-lens. A portion of the keys was printed in *The Bryologist* (79) shortly before the publication of the book. A second edition, more correctly a reprinting with the addition of an Addenda with the then currently accepted nomenclature, appeared in 1951. Although not intended for use in identifying all the species found in New England, it is an excellent guide for a beginner especially one with little botanical training and perhaps not accustomed to the study of small objects.

In 1926 Mrs. Dunham was appointed an associate editor of *The Bryologist*, then under the editorship of O. E. Jennings. Her name first appears in this role in Volume 29, issue 6 (1926). When O. E. Jennings retired as editor as of Volume 40, issue 6 (1937), she also resigned. As stated by Beals (41) she was invited to assume this responsibility at a period when there were few articles appearing in the journal that would appeal to beginners in moss study. Her assignment was to encourage and solicit articles on interesting bryological excursions, localities for rare mosses and the like. Under the editorship of Jennings' successor, W. C. Steere, *The Bryologist* became a more professionally-oriented journal.

Dean Frank J. Hilferty (117) indicates that Mrs. Dunham was "a help to me in many ways" when he was Curator of Crypto-

gamic Plants for the New England Botanical Club. Her herbarium was given to him after her death and is still in his possession.

Mrs. Dunham's contributions to New England bryology were in the realm of encouraging beginners in moss study, both by her book and her contributions to *The Bryologist*. She also aided fellow members of the Boston Society of Natural History in the study and identification of mosses. The Boston Society Herbarium, including specimens collected and/or identified by Mrs. Dunham, is now part of the general collection of the Farlow Herbarium. (13, 17, 31, 32, 41, 79, 80, 117, 170, 215)

Dura Lewis DUTTON (1883-1929)

Dura Lewis Dutton, the son of Martin and Emma (Kinsman) Dutton, was born 28 November 1883 in Leichester, Vt. When he was a small child his family moved to Brandon, Vt. There he attended the local school and graduated from the high school in Brandon. He attended the University of Vermont (1905-1906) and while there specialized in botany. His principal occupation was farming.

He showed an early interest in the photographic study of flowering plants. Later he concentrated on mosses, hepatics and lichens. His herbarium, now at the University of Vermont, contains many cryptogams. There are also D. Lewis Dutton (the name he preferred) specimens that were in the collection of George K. Merrill now housed at the Farlow Herbarium.

Dutton was a member of the Vermont Botanical Club and the Sullivant Moss Society (now the American Bryological and Lichenological Society). He died at his home on the family farm near Brandon, Vt., on 13 Oct. 1929, after a short illness. His collections from Vermont provide an important contribution to the knowledge of this area's bryophytes. (16, 50, 76)

Daniel Cady EATON (1834-1895)

Daniel Cady Eaton was born at Fort Gratiot [now Fort Huron], Mich., on 12 September 1834. He was the only son of General Amos B. Eaton, United States Army, and Elizabeth (Selden) Eaton, and a grandson of Amos Eaton (1776-1842), the pioneer American botanist (81, 82). As an officer in the regular army his father was later stationed in New York City and the family also moved there. During the Mexican War (1846-1848) the mother and children stayed in Rochester, N.Y. Daniel at-

tended Rensselaer School [which later became Rensselaer Polytechnic Institute] for a short time and also General Russell's Military School, New Haven, Conn. His final preparation for college was made with a private tutor.

In 1853 Daniel Eaton entered Yale College. He was a distinguished scholar in Latin, but had already developed an interest in botany through his father. As an undergraduate he corresponded with John Torrey, Asa Gray, and William S. Sullivant. At the suggestion of C. C. Frost (q.v.) Eaton wrote to Sullivant on 14 February 1856 (177):

> ...I have been about 15 months studying mosses, and have in that time collected about 180 species, about 25 percent of them having been given me by others. ...

Daniel Eaton felt obligated and grateful to Sullivant for his assistance. On 6 October 1856, Eaton wrote Sullivant (177):

> ...I am happy to be of assistance to you and shall always feel honored by anything I can do for you.

Daniel Eaton furnished some of the specimens for Sullivant and Lesquereux's *Musci Boreali Americani*. On 16 November 1856, Sullivant wrote Eaton (177):

> ...The specimens of *Font.*[inalis] *Eatoni* [=F. novae-angliae Sull.] &c. came safely to hand -- a very beautiful lot of them. - *F. Eatoni* and *Mnium cinclidioides* will appear in the *Musc. Bor. Amer.* - the labels for them are now in the hands of the printer. *Mn. cinclid*^{es} has never before been found in this country. - I admire your zeal and energy in procuring the specimen. It reminds me of my early doings in that line. ...

In 1857 Eaton received a baccalaureate degree from Yale College. He spent the next three years at the Lawrence Scientific School, Harvard University, where he began the systematic study of botany under Professor Asa Gray. In 1860 Eaton received a B.S. from Harvard. His thesis was titled *Filices Wrightianae et Fendlerianae*. During this period a special friendship developed between the two men, and when Eaton published his

major two volume work on the North American ferns (1879-1880), he dedicated it to Asa Gray.

During the Civil War (1861-1865) Eaton's botanical studies were interrupted and he served in New York City as a clerk and inspector of subsistence stores, a civilian position, for the United States Army. At that time his father was Commissary General in that city. Daniel Eaton took advantage of this residency to develop a personal relationship with John Torrey (1796-1873) who had been tutored in botany by Daniel's grandfather, Amos Eaton.

Eaton moved to New Haven in July 1864 when he was elected to the newly established Chair of Botany at Yale and a few years later he was appointed University Professor of Botany at Yale, a position he held until his death. He was a sports enthusiast and especially enjoyed archery, baseball, football, fishing and hunting. Eaton was also a student of anthropology, Latin, Greek and family history. He prepared genealogies of the Eaton and Selden families. Daniel Eaton was a communicant of the Episcopal Church.

Charles C. Frost (q.v.) once told a friend that Eaton's attention was first called to ferns by his fiancée, Caroline Ketcham of New Haven, whom he married on 13 February 1866. When he died in New Haven on 30 [29] June 1895 he was survived by his widow, one son (George F. Eaton, Yale College, Ph.B.-1894) and one daughter. The eldest child in the family died in childhood.

During his tenure at Yale he was known as Daniel C. Eaton to distinguish him from a cousin who had the same name, D. Cady Eaton, a Yale Professor of History and Criticism of Art.

Eaton instructed at both Yale College and the Sheffield Scientific School and he encouraged his students and members of the Yale community to study the local flora. He prepared the introduction and compiled the list of mosses and liverworts for the *Berzelius Catalogue* (44) published by the student members of the Berzelius Society in 1878. John A. Allen (q.v.) and Oscar D. Allen (q.v.) were also contributors to this pamphlet.

With the exception of two trips to Europe in 1866 for botanizing and in 1877 for his health, Daniel C. Eaton confined his travels mostly to New England where he made many collecting trips. He spent part of the last summer of his life in Shelburne, N.H., collecting Sphagna with W. G. Farlow (q.v.).

Details of the Sphagna exsiccata of Daniel C. Eaton and Edwin Faxon are given in the biographic sketch of Edwin Faxon (q.v.). George F. Eaton, D. C. Eaton's son, arranged for the distribution of this material after his father's death. Letters from G. F. Eaton to W. G. Farlow indicate that he depended upon Farlow, a long time friend and correspondent of his father, for advice in the proper protocol for the issuance.

Although Eaton's publications were mainly on ferns and algae, he devoted a reasonable fraction of his time to bryophytes, especially hepatics and Sphagna. Over the years he and W. G. Farlow exchanged bryophyte specimens and identifications on a regular basis. In his later years Eaton devoted even more of his time to these plants and developed an extensive knowledge of the New Hampshire bryophyte flora.

Even though he did not publish many reports on New England bryophytes, Eaton's collections and those of others that he preserved at Yale were the foundation for the later work of G. E. Nichols (q.v.) and A. W. Evans (q.v.) in New England bryology. (10, 33, 44, 45, 70, 81, 82, 127, 128, 177, 184, 187, 188, 190, 226)

Alexander William EVANS (1868-1959)

Alexander W. Evans was born in Buffalo, N.Y., on 17 May 1868. He was a son of William A. and Maria Ives (Beers) Evans, and the youngest of seven children. After the death of the father, a planing mill operator, in 1880 the family moved to New Haven, Conn., where Evans resided for the rest of his life. He graduated from a public high school in New Haven and entered Yale University in 1887. Daniel Cady Eaton, Professor of Botany at Yale, was one of his instructors, and Evans early developed an interest in bryophytes, especially liverworts and Sphagna. The Yale Herbarium has hepatics collected by Evans in April 1888, the second half of his freshman year. He earned a Ph.B degree in 1890 and an M.D. in 1892.

Evans continued to study bryophytes, especially liverworts, (he preferred to call these plants hepatics) throughout his collegiate career and had published three papers on the group by the time he received his M.D. After completing a two year internship at the New Haven City Hospital (the only period after he began college when he did not have time for plants) he sailed to Germany in the fall of 1894 to study Botany under Professor Kny at the University of Berlin. He also studied at the University of Munich. In letters from D. C. Eaton to W. G. Farlow,

preserved at the Farlow Herbarium and Reference Library, Eaton commented several times on Evans, his bright and enthusiastic student. However, he wrote that he had advised the young man to pursue the medical profession as a career and to keep botany as an avocation.

After almost a year of European study Evans was asked to return and assume the teaching position in botany at Yale. He served as Instructor (1895-1901), Assistant Professor (1901-1906), Daniel Cady Eaton Professor (1906-1936), and Professor Emeritus (1936-1959).

Even though Dr. Evans had an earned doctorate in medicine, he began to prepare a dissertation for a doctor of philosophy degree shortly after his appointment to the botanical faculty. He received this degree from Yale in 1899.

Evans' main research interest was in hepatics. He collected in many parts of Connecticut and also in other sections of New England. For a number of years while on the Yale faculty he journeyed to Europe in the summers to visit research laboratories and to build up his library. In addition to publishing lists and careful studies of New England hepatics, he also continued to work on liverworts from other parts of the world and made collecting trips to the Caribbean and parts of South America.

In 1926 Evans published (with Rosa Meyrowitz) a catalogue of Connecticut lichens, many identified by George K. Merrill. Over the next decade he studied and published on both hepatics and lichens. After having established an international reputation as an hepaticologist, he embarked on a new career activity, a study of the lichen genus Cladonia. He established a remarkable record of scientific progress in this new field also and made five trips to Florida and several with Lewis E. Anderson, the bryologist, to sites in North Carolina to study Cladonia.

After Evans' death an appreciation for his hepaticological work was published by Rudolf M. Schuster (189):

> ...Indeed, only two or possibly three hepaticologists have even approached Evans in scope and quality of research performed -- ...

and for his lichenological activities by Mason E. Hale, Jr. (108):

> It will come as a surprise to many hepaticologists that Alexander W. Evans was the foremost authority on the lichen genus *Cladonia* in the latter half of his long career, just as most lichenologists are astonished to learn of his reputation in hepatics. ...

Evans was well-grounded in many botanical areas especially plant morphology. He supervised seven doctoral theses during his teaching career, a time period when there were not as many graduate students as there are today. These theses were in plant morphology, and two of his former students, Hempstead Castle and Margaret E. Fulford, continued professional research upon hepatics.

Dr. Evans is said to have worked six or seven days a week in his laboratory. Hale (109) notes that sometimes he would spend time on his stamp collection and would be embarassed to have an unexpected caller find him at a study other than plants. Evans also had an effective and concise style of writing and his help was often sought by colleagues. He also served on the editorial boards of several professional journals.

Alexander Evans married Phoebe Whiting on 17 April 1914 and the couple had three daughters, Margaret, Janet, and Allison.

Two honors that Evans received after becoming an Emeritus Professor were especially valued by him. At the centennial celebration of the Sheffield Scientific School in 1947, Yale University awarded him an honorary Sc.D. In 1956, at the fiftieth anniversary celebration of the Botanical Society of America he was named as one of the fifty outstanding living American botanists. Alexander W. Evans died 6 Dec. 1959 at New Haven, Conn.

His herbarium is preserved at Yale University. He systematically recorded the New England hepatic flora in a series of articles, "Notes on the New England Hepaticae," which was published in *Rhodora* (1902-1923). He also compiled data on the distribution of New England Hepaticae. "The Revised List of New England Hepaticae" appeared in *Rhodora* in 1923. Although the titles would appear to make these regional articles, Schuster (189) reported that they contain many original observations valuable to all hepaticologists. (4, 30, 33, 86, 87, 88, 108, 109, 153, 171, 187, 189, 205, 225)

William Gilson FARLOW (1844-1919)

William Gilson Farlow was born in Boston, Mass., on 17 December 1844. His father, John S. Farlow, was a successful businessman with interests in nature, music and books, and a generous contributor to the Massachusetts Horticultural Society Library. His mother, Nancy Wight Blanchard, came from an old Massachusetts family. In 1858 the family moved to a home in Newton, Mass., located on a large piece of property where John Farlow could engage in the study of plants. Farlow family tradition traced William G. Farlow's interest in plants to his discovery, at age fourteen, of Hepatica in the nearby woods.

Farlow attended the Boston public schools and spent one year at Boston Latin School before he entered Harvard College in 1862. He was already enthusiastic about natural history and while at Harvard, he took courses offered by Asa Gray. At the time of his graduation in 1866 Farlow decided to make botany his career. However, because most botanists at that time, pursued the study of plants as an avocation, he decided to follow the advice of Asa Gray. To quote Farlow's own words (57):

> ...When I graduated from college in 1866 and wished to become a botanist, Professor Gray told me I ought to study medicine first because the possibility of gaining a living by botany was so small that one should always have a regular profession to fall back upon.
>
> ...In 1866, there were very few botanical professorships in this country, the salaries were very small and the equipment very shabby. Gray was professor at Harvard, D. C. Eaton at Yale and Porter at Lafayette. Torrey, in spite of his distinction as a botanist, really depended on his position as a chemist for his living. The comparatively few positions in government and state stations offered few attractions and changes were frequent. To a young man the prospect was not assuring.

The next four years were spent at Harvard Medical School from which he received an M.D. in 1870. During his training he showed great promise as a surgeon, but he never practiced medicine.

Asa Gray gave him an assistantship which enabled him to begin the study of the collections of lower plants in the Gray Herbarium (1870-1872). During the summer of 1871 he studied marine algae at Wood's Hole. He also did some teaching in cryptogamic botany and began to realize that he needed further training. In 1872 he joined a group of advanced students in Anton DeBary's laboratory at the University of Strasbourg. It was here he acquired a more thorough knowledge of the fungi. Next he studied lichens in Geneva with J. Mueller. Marine algae studies were pursued with Bornet and Thuret at Antibes, France. He also travelled extensively in Europe and developed friendships which were continued by correspondence in future years. His letters to Asa Gray from Europe (1872-1874) indicate his early desire to build up a library as well as collections in his special field (114).

In 1874 Farlow returned from Europe and received an appointment as Assistant Professor at Harvard University on the staff of the Bussey Institute in Jamaica Plain, Mass. The Institute was basically a practical school of agriculture and horticulture. During his years at the Bussey Institute Farlow probably developed his interest in fungi as plant pathogens. In 1879, due to diminished income from the Bussey funds, he was at Cambridge full time. That year he became Professor of Cryptogamic Botany, a position which he held for the rest of his life. During the decade 1875-1885, Farlow's efforts and the application of his European training developed cryptogamic botany as a recognized field of study in North America (173).

Farlow was interested in the study of marine algae, and he published several important works in this field. He also devoted some time to freshwater algae and produced a classic paper on algae in drinking water supplies. During this period he also investigated and published on the fungal diseases of economic plants.

Because he did not publish major papers on some groups of lower plants, it should not be assumed that he did not also collect, study and acquire lichens and bryophytes. His purchase of Tuckerman's herbarium and his extensive correspondence with D. C. Eaton of Yale, especially on Hepaticae, are evidence of his broad interests. In addition to acquiring herbarium specimens representing all cryptogamic groups he continued to develop an extensive library.

Farlow did not neglect the New England flora. He was a leader in the formation of the New England Botanical Club.

The first meeting of those interested in the establishment of the Club was held at Farlow's Cambridge home on 10 December 1895. After its formation, Farlow served as president for the first year.

In 1896 Farlow withdrew from teaching undergraduate classes, but he continued to work with graduate students in his own field. He devoted himself chiefly to his cryptogamic herbarium and private library. His work was acknowledged by the honorary degrees he received from Harvard (1896), the University of Glasgow (1901), and the University of Wisconsin (1904). On the occasion of the two hundredth anniversary of the birth of Linnaeus in 1907 Farlow also received an honorary doctorate from the University of Uppsala.

On 13 January 1900 Farlow married Lilian Horsford and they were often hosts to the botanical community in the Quincy Street, Cambridge, home he had purchased in 1893.

Farlow continued his scientific work and also spent considerable time on family business affairs until shortly before his death on 3 June 1919 in Cambridge, Mass. His last will and testament indicate the great value Farlow put on his collection of books and specimens. He specified that if a suitable fireproof building were to be provided by Harvard within three years the herbarium and library were to be given to that University. Otherwise the executor would work out a similar arrangement at another institution. As the deadline approached, the old Divinity School building was made available and the Farlow Herbarium and Reference Library were together in one location, which they still occupy, on Divinity Avenue in Cambridge.

In reference to New England bryology, Farlow had gathered together one of the largest bryophyte herbaria in North America. Although the collections are world-wide, by exchange, gifts, purchases and his own collections he added many New England mosses and hepatics. The library resources enhance the potential value of this material. During the last years of his life Farlow began to assemble his collections of many of the lower plant groups. The bryophytes were issued by the Farlow Herbarium after his death as *Reliquiae Farlowianae* [Cambridge, Mass., 25 February 1922]: *Hepaticae* -- Numbers 491 to 540, *Sphagnales* -- Numbers 541 to 550, *Bryales Acrocarpi* -- Numbers 551 to 573, *Bryales Pleurocarpi* -- Numbers 574 to 600. Specimens for most of these numbers were collected by Farlow in New England. (33, 45, 57, 89, 90, 91, 114, 124, 127, 131, 142, 173, 191, 206, 207, 208, 211, 224)

Edwin FAXON (1823-1898)

Edwin Faxon was born 16 September 1823 in Abington, Mass. He was a son of Elisha and Hannah (Whiting) Faxon and an eighth generation descendant of Thomas Faxon who came to Braintree, Mass., from England in 1647. Edwin's early boyhood was spent in his native town where he developed an interest in wild flowers from a relative who often took walks with him. At the age of seven he began the study of Greek and Latin with a private tutor. The family moved to Boston, Mass., when Edwin was thirteen, and he was there enrolled in the school of T. B. Hayward. He became fluent in both French and Italian in his teens. Much later in life he studied German by himself and developed a good reading knowledge of that language. At nineteen he was taken into the business of his father who was a merchant in Boston.

For two years (1851-1852) he took a walking tour of the Continent and Great Britain. After this European travel he never left New England again, except on business. Upon his return to Boston he became a partner in his father's firm. In 1855 his father died and Edwin Faxon became the head of the establishment. He retired from the business at the age of fifty-eight. Mr. Faxon never married, but he made a home for his younger brothers and sisters in the Jamaica Plain section of Boston.

Edwin Faxon collected plants in Vermont with C. G. Pringle (q.v.) before the latter began his expeditions outside the New England area. Faxon's collections were joint ones made with his younger brother, Charles Edward Faxon (1846-1918). Edwin Faxon devoted much of his free time to the collection and study of the New England flora and reportedly told friends, "New England is good enough for me." George G. Kennedy (q.v.) states (135):

> ...It is probable that no botanist had a better field knowledge of New England plants in certain areas than Mr. Faxon, in the years from 1872 to 1898. These areas were eastern Massachusetts; Mt. Desert, Maine; the White Mountains, New Hampshire; Smuggler's Notch, Willoughby and the Lake Champlain shore in Vermont.

Edwin Faxon's major contribution to New England cryptogamic botany was the study and systematic collection of New England Sphagna. For some years he had been interested in this genus

and he sent about five hundred numbered specimens of these mosses collected in New Hampshire and Massachusetts to Dr. Carl Warnstorf in Neuruppin, Germany. Dr. Warnstorf credited this systematic collection with motivating him to prepare his revision of the North American Sphagna. In 1890, Warnstorf's review, translated from German into English by Edwin Faxon, was published in the *Botanical Gazette* (213).

According to Geneva Sayre, Edwin Faxon collected Sphagna for two exsiccatae (184):

> Faxon, Edwin (1823-1898)
> North American Sphagna. Edwin Faxon Coll.
> Dr. C. Warnstorf Determ.
> Date of Publication: All the specimens I [G. Sayre] have seen were collected in the 1890's. Eaton and Faxon's Sphagna Boreali-Americana exsiccata was distributed in 1896, also largely determined by Warnstorf. The specimens I have compared in the two sets are not of the same collection, but some are from the same place, and these are of later collection in Eaton and Faxon.

and

> Eaton, Daniel Cady (1834-1895), and Edwin Faxon (1823-1898).
> Sphagna Boreali-Americana Exsiccata,
> Curaverunt D. C. Eaton et E. Faxon.
> Distribuit G. F. Eaton.
> Numbers 1 - 172. New Haven, Connecticut, 1896.
> Remarks: The preface states that all determinations were by Warnstorf. Faxon was assisting Eaton in preparing the set at the time of the latter's death; he completed the work and wrote the preface. George F. Eaton, son of D. C. Eaton, was responsible only for the distribution. ...

Edwin Faxon died in Willoughby, Vt., on 12 June 1898. Sayre (187) lists Yale University and the Farlow Herbarium as having the largest number of bryophytes from his herbarium. Many of his mosses are also preserved in the New England Botanical Club Herbarium. (33, 124, 135, 184, 186, 187, 213)

Sarah Elizabeth FRENCH (1816-1901)

Sarah Elizabeth Smith, the daughter of Abigail P. and Submit Smith was born 2 March 1816 in Waltham, Mass., where she was educated and where she lived her entire life. She taught first in the district school, later in the local high school, and subsequently in the private school established by Daniel French. Late in life she married Mr. French, who in 1859 gave up his school due to the loss of a leg by amputation. He had read law and established a legal practice in Waltham, Mass. She then opened a school in their home.

Mrs. Sarah E. French was an excellent linguist in both classical and modern European languages and an enthusiastic botanist. She was said to have known the scientific names of the local flora so well that she was often consulted by college professors. When the Waltham Botany Club published *A Partial List of the Native Flora of Waltham, Mass.* in 1883, she contributed the records for grasses, mosses, and lichens. This pamphlet was based on the lists printed earlier in the *Daily Free Press*, a Waltham, Mass., newspaper.

She died on 12 January 1901 in Waltham, Mass. (11, 139, 212)

Charles Christopher FROST (1805-1880)

Charles Christopher Frost was born in Brattleboro, Vt., on 11 November 1805. His father, James Frost, came to this town as a young boy and later established the first shoemaker's shop there. Elizabeth Stewart, C. C. Frost's mother, was the daughter of an officer in the American Revolution. Brattleboro was then a country town which had grown up near the site of colonial Fort Dummer.

Charles Frost attended the local country school. It is reported that when he was about fifteen a teacher struck him with a ruler. He picked up his books and the broken ruler and brought them home as evidence of the indignity. He was determined not to place himself in a classroom situation again, and soon afterwards, he joined his father in business. With no particular goal in mind, other than a wish to acquire knowledge, he began the study of mathematics. Next he tackled chemistry, physics, meteorology and geology. He also prepared collections of insects and shells and finally turned to plants.

It is said that his systematic study of plants began after he consulted a New York physician, Dr. Willard Parker (1800-1884), about a dyspeptic condition. The doctor soon realized that flowering plants interested his patient and recommended two hour-long botanical walks a day. The treatment improved Frost's health and he continued with the practice. Soon he progressed to cryptogams and began to study the mosses and lichens in particular. Later he turned to the fungi and made a large number of watercolors of the boletes, a group that especially fascinated him. In order to read the European books on lower plants Frost studied Latin and later French, German and other European languages.

During his development as a botanist, Frost never gave up his business. Dudley (78) reports him as remarking:

> "Whatever I have acquired of science, in my life, came through search for health and mental entertainment; science is not my profession, - shoemaking is."

Mr. Frost's life pattern was methodical. He occupied the same store for forty-nine years and accumulated, by his thrift and good business judgment, a "considerable fortune." However he always maintained a regular daily study period. The shop was closed from noon to one P.M. and he was in his study by 12:30 P.M. Walks in the woods were often taken in the early morning and he is said to have managed to read while working on the shoes.

He did not discuss his botanical studies except with those who showed a definite interest. When such people visited his area he would often close his shop for several days and go botanizing with them. He had many correspondents in both the United States and Europe.

Charles C. Frost died on 16 November 1880 at Brattleboro, Vt.

As a pioneer American cryptogamic botanist, Frost's most important contribution to New England bryology is his collections. However it is known that he did not collect specimens of every plant he recorded. In addition to his specimens Frost kept a manuscript catalogue of his own herbarium in which the localities were recorded. This catalogue covers mosses, liverworts and fungi. This material, plus some of his botanical correspondence, is now housed at the University of Vermont.

Frost published several short papers describing new species of fungi. His original research was mostly on the fungi, especially the genus Boletus. In the *Transactions of the Orleans County Society of Natural Sciences* he published a catalogue of the flowerless plants of northern New England (ca. 1871). His best known work is the *Catalogue of Plants Growing within Thirty Miles of Amherst College* by Edward Tuckerman and C. C. Frost published in 1875 (210). To this book Frost contributed the lists of mosses (192 species), liverworts (47 species), Characeae and fungi. Unfortunately localities are not listed. (33, 51, 68, 78, 85, 95, 110, 111, 128, 150, 210, 224)

Walter GERRITSON (1861-1959)

Walter Gerritson was born 5 January 1861 in Reading, Mass., where the Gerritson family had resided for several generations. At the age of eighteen he moved to Waltham, Mass., where he spent the remainder of his life. For thirty years he worked as a machinist in the watch factory in Waltham. At that stage in his life he decided to change his occupation to landscape gardener which enabled him to utilize his life-long interest in horticulture.

Gerritson was a very active person who is known to have ice-skated on the Charles River at the age of ninety-two. His more usual outdoor activities included walks in the woods and the study of the local flora. Both Elizabeth M. Dunham (q.v.) and Charles J. Maynard (q.v.) credited him with assistance in their bryological studies, especially field-work. The Prospect Hill section of Waltham, Mass., an area well-known to him, was the site of many of the bryological forays he led. Gerritson published two short articles of a general nature in *The Bryologist*.

Harriet (Chase) Gerritson, his wife, pre-deceased him. There were no direct descendants. He died 2 January 1959, only days before his ninety-eighth birthday, and is buried in the Gerritson family plot in Reading, Mass. (27)

Helen Evangeline GREENWOOD (1872-1953)

Helen Evangeline Greenwood was born 1 July 1872 in Holden, Mass. As a child, she was told that she lacked an "ear for music" and this discouraged her from attending the State Normal School. Instead she enrolled in Wellesley College (1892-1896) and received a B.A. in botany. She was a Wellesley Scholar

(1902, 1904) and studied at Woods Hole. In 1906 she received an M.A. in botany from Wellesley College.

Miss Greenwood devoted her professional career to high school teaching. Her first position was in the High School at Oxford, Mass., (1898-1900). In 1901 she joined the Worcester, Mass., school system and taught physiology at the "old" English High School. Later when the Massachusetts Department of Education dropped physiology as a required subject, she taught English. The rest of her teaching career (until 1942) was spent at this school which was re-named the Worcester High School of Commerce during her tenure. In later life she was especially proud of the effect her establishment of a free lending library within the school building had on her "non-reading" pupils.

Miss Greenwood had many hobbies including photography, bird watching, writing and hepatics. Her general writings include poems and an historical article on the French Huguenot settlers in the area of Massachusetts where she was born. She became a Deaconess in the Congregational Church, a member of the Ward 9 Republican Club and editor of the *Nature Outlook*, a publication of the Worcester Natural History Society. She was also Curator of Botany for this group.

The 1914 volume of *The Bryologist* gives a brief history of the Worcester Moss Club. In 1905 Mrs. Ella L. Horr, Custodian of the Worcester Natural History Society, formed a class at the Society's Museum on observation with a hand lens. In 1907 and 1909 Helen E. Greenwood showed the group slides of bryophyte leaf-sections, peristomes, antheridia, etc. under the compound microscope. Miss Alice C. Kendall of Holden in 1910-1911 gave a ten-lesson course on mosses explaining the terms used in the manuals for the study of bryophytes with a compound microscope. At the end a public exhibit was held. Under the guidance of these two friends an herbarium was accumulated for the Society. This herbarium is now preserved at Clark University, Worcester, Mass., (116).

Helen Greenwood published in *The Bryologist* a number of articles on bryophytes, especially hepatics. Her name first appeared in the printed Sullivant Moss Society membership list in 1909, and she was also involved in the exchange of mosses and hepatics at this time. She discovered the fourth station for Nardia Geocyphus [= Nardia geocyphus (DeNot.) Lindb.] in the United States (Worcester, Mass.) and was especially "thrilled" to have made an addition to the North American flora - Cephalia compacta [= Cephalozia connivens (Dicks.) Lindb. var. com-

pacta (Warnst.) Nichols]. Although most of her collecting was done in Worcester County, Mass., she also collected and published on the bryophytes of Mt. Desert Island, Maine (102).

In 1942 Miss Greenwood retired from her teaching position. This same year she gave her cryptogamic herbarium to Wellesley College including a thousand identified specimens of hepatics. A work desk was reserved for her in the College herbarium. In 1946 she finished a paper on mosses, lichens and fungi for a refresher course at the Worcester Natural History Society. This was later published in the *Nature Outlook* (103). Copies of her general and scientific publications are preserved in the Wellesley College Archives. Miss Greenwood died in Worcester, Mass., on 25 January 1953. (2, 27, 28, 34, 102, 103, 116)

Abel Joel GROUT (1867-1947)

Abel Joel Grout was born on a farm in Newfane, Vt., on 24 March 1867. He was one of six sons of Joel and Martha (Pike) Grout. His ancestors had lived and farmed in that area for more than two hundred years and, as the farm was not a productive one, Abel and his younger brother were indentured to an uncle by their father. The poverty of Grout's youth had a profound effect on his course of action in later life. He attended primary school in Newfane and the high school in Brattleboro, Vt. As the schools in the area were poor and Grout had a desire for further education, he did extra chores for a local farmer in order to pay a tutor in Latin and algebra. Working to pay his fees, Grout enrolled at the University of Vermont from which institution he received a Ph.B. in 1890. He was second academically only to Marshall A. Howe, the brother of C. D. Howe (q.v.). Marshall Howe was his boyhood friend and college roommate.

When he was twelve years old, Grout's father had given him a copy of one of Asa Gray's books as the boy had shown an interest in the local flora, but it was not until the early 1890's that he developed an interest in mosses - "largely because I could collect and study them in winter" (202).

After his graduation from the University of Vermont, Abel Grout began a career as a high school teacher which was uninterrupted until his retirement forty years later (1930). Even during his two years of graduate work at Columbia University Grout held full-time positions to support himself and his wife, the former Grace E. Preston, also a teacher, whom he met and married in 1893 while both were at the Vermont Normal School.

In 1897 he received a Ph.D. from Columbia University. His thesis was a monographic revision of the North American species of Brachythecium supervised by Mrs. Elizabeth Gertrude Britton.

Grout was one of the founders of the Sullivant Moss Society and the force behind the appearance of its publication, *The Bryologist*. In recognition of his pioneering effort, Volume 50 (1947) of this journal was dedicated to him. He died on 27 March 1947 in East Bradenton, Fla. His wife pre-deceased him on 14 February 1947. The couple had one son who died in infancy (129).

After the completion of his doctoral thesis on Brachythecium he extended his studies to other pleurocarpous mosses (202):

> ...His early work on *Brachythecium* and its relatives inclined Grout's interest toward pleurocarpous mosses, and through his career, his very real interest in this group was reflected by his first series of Musci Exsiccati, the "North American Musci Pleurocarpi," his "Check List of the Pleurocarpous Mosses of North America, North of Mexico" (1929) and his almost single-handed completion of Volume III (the first to appear) of his "Moss Flora of North America, North of Mexico" (Pleurocarpae).

Although the poverty of his youth led him to be frugal in most matters, Grout spent his own money for the completion of what he considered worthwhile projects such as the *Moss Flora*.

Dr. Grout's contributions to New England bryology are reflected not only in articles in *The Bryologist* but also in the various books he authored. A manual, *Mosses with a Hand-Lens - A Non-Technical Handbook of the Common and More Easily Recognized Mosses*, published in 1900, summarized his earlier work in the northeast. A second edition which included hepatics was issued in 1905. The third edition (1924) included a section on the Hepaticae by Marshall A. Howe. The fourth and more expanded edition covering additional areas of the United States was issued in 1947.

The success of the first edition of *Mosses with a Hand-Lens* encouraged Grout to produce a more advanced work, *Mosses with a Hand-Lens and Microscope: A Non-Technical Hand-Book of*

the More Common Mosses of the Northeastern United States, issued in five parts (1903-1910).

Grout's publication of these two books plus his role in the establishment of *The Bryologist* and the Sullivant Moss Society would be sufficient to establish him as a leading contributor to New England, as well as, to North American bryology. He is also remembered for having introduced bryology to people with a general interest in plants and to serious amateurs.

The preparation of the monumental *Moss Flora of North America, North of Mexico* occupied most of Grout's time between 1928 and 1940 (106). Although, as already stated, he himself prepared Volume III on pleurocarpous mosses, he received the cooperation of other American bryologists such as A. L. Andrews (q.v.) in the production of Volumes I and II.

After the completion of the *Moss Flora* in 1940 Grout, possibly as a result of his long association with the New York Botanical Garden, was invited to continue his studies for inclusion in a volume on the mosses in the series, *North American Flora* (202).

Being a native New Englander Grout returned to his ancestral home in Newfane, Vt., in the summers, especially after his retirement from high school teaching in 1930. During the 1930's he purchased a winter home in Manatee, Fla., but continued to reside in Newfane during the summers. For several summers, through the recommendation of his fellow bryologist, Henry S. Conard, he was a member of the staff of the Biological Laboratory at Cold Spring Harbor, Long Island, N.Y., where he supervised the work of students in bryology. The success of this project led to Grout's formation of a summer school of bryology at Newfane, Vt., under the auspices of the Long Island Biological Laboratory. This proved to be a successful venture, and many bryologists of the next generation spent a period of time with Grout in Newfane.

Although some may not approve of Grout's non-scholarly, short-cut methods for getting things done, there seems to be no question that Grout is still held in the highest regard by serious students of North American bryophytes. A complete list of his publications in bryology has appeared (202). His herbarium is available for study at Duke University.

Many of the people who have written about Grout knew him personally and their reminiscences are therefore of special

value. (2 (portrait of A. W. Evans and A. J. Grout), 33, 61, 94, 104, 105, 106, 107, 113, 129, 149, 187, 188, 192, 197, 202, 204, 225)

Edward HITCHCOCK (1793-1864)

Edward Hitchcock, son of Justin and Mercy (Hoyt) Hitchcock, was born in Deerfield, Mass., on 24 May 1793. His youth was one of comparative poverty as his father, a hatter by trade, who was called to serve twice in the Revolutionary War, owned only a small farm. Also, Edward's father assumed the debts of his father who died as a result of an illness contracted in the same war. In spite of his monetary problems Edward's father was a respected member of his community and a deacon in the Congregational Church.

Edward's father encouraged the education of his three sons, and Edward attended the local primary school and Deerfield Academy. Throughout his boyhood he worked on the farm and occasionally at carpentry and surveying. In his spare time he engaged in scientific pursuits and was encouraged in his intellectual development by a few companions in Deerfield who had organized a weekly discussion group. Edward studied Latin and Greek and was aided in astronomy by his uncle, Major General Epaphras Hoyt. Edward's ambition was to attend Harvard College with advanced standing but impaired eyesight, due to illness, prevented this. For two years he found it difficult to study but in 1815 the Trustees of Deerfield Academy made him principal of the school, a post he held until 1818.

During Edward's tenure at Deerfield Academy, Amos Eaton lectured in the Amherst, Mass., area. As a result of the enthusiasm he aroused, Hitchcock, Dr. S. W. Williams and Dr. Dennis Cooley (q.v.) all began to work together in the study and collection of the local flora including bryophytes.

Hitchcock began his theological studies at Yale in 1818 and graduated in 1820. He was ordained in 1821 and became minister of the Congregational Church in Conway, Mass., (1821-1825). While holding this pastorate he started to make a scientific survey of the western part of Massachusetts. He later studied chemistry under Silliman at Yale.

Hitchcock joined the faculty of Amherst College in 1826 as Professor of Natural Philosophy and Chemistry and later his title was changed to Professor of Chemistry and Natural History. For many years he was the sole instructor in these disci-

plines at Amherst College. However, he lived long enough to see the staff increase to four men in the Natural History Department. This was the Department he had created and built by his reputation especially as a geologist. In his autobiography Hitchcock recalls the history of the College's Natural History Society and its Cabinet (121):

> ...But to one acquainted with natural history, probably the larger part would come under the ironical title *Jactalites*; that is, specimens to be thrown away. However they did a very good service so long as no better collections were near.

With regard to New England bryology, Hitchcock will be remembered as the author of two plant catalogues. One issued in 1829 (118) covered the area near Amherst College and the second, issued in 1833 (119) and revised in 1835 (120), dealt with the entire state of Massachusetts. Both catalogues included bryophytes. The 1833 list was part of an inventory of natural resources undertaken during the first state geological survey. This idea originated with Hitchcock. The 1833 survey contained the first list of bryophytes published for any New England state.

Hitchcock was the first State Geologist of Massachusetts (1830-1844), the first president (1840) of the Association of American Geologists and one of the original members (1863) of the National Academy of Sciences. He continued as a Professor at Amherst College until 1864, and in addition, served as College president (1845-1854). Hitchcock conducted the worship services in the Amherst College Church during his presidency.

Hitchcock also took a deep interest in popular education and lectured to the general public in the evening. He was especially interested in the education of women and was deeply involved in the establishment of Mt. Holyoke Seminary, South Hadley, Mass., which later became Mt. Holyoke College. This school was second only to Amherst College in the care and supervision he extended to it.

In 1821 Edward Hitchcock married Orra White of Amherst. She had been an instructor at Deerfield Academy and was also an artist. She prepared some of the illustrations for her husband's publications. They had six children who lived to maturity.

Edward Hitchcock died in Amherst, Mass., on 27 February 1864. His herbarium was deposited at Amherst College whose collections are now on permanent loan to the University of Massachusetts at Amherst. (8, 37, 72, 98, 118, 119, 120, 121, 128, 141, 148, 224)

Clifton Durant HOWE (1874-1946)

Clifton Durant Howe was born on 30 July 1874 in Newfane, Vt. He was one of five children of Marshall Otis and Gertrude Isabelle (Dexter) Howe. His twin brother, Carlton Dexter Howe, belonged to and served as Secretary-Treasurer and later Secretary of the Vermont Botanical Club. The oldest child, Marshall Avery Howe, wrote a doctoral dissertation and several publications on hepatics. "The Hepaticae and Anthocerotes of California" published by M. A. Howe in 1899 (126) is still useful to bryologists today.

Clifton Durant Howe received an A.B. degree from the University of Vermont in 1901. He was also an Instructor in Botany at the University of Vermont (1899-1901). One of his early works was *A Preliminary List of the Hepaticae of Vermont* published by the Botany Department of the University in January 1899 (125). He attended the University of Chicago (1901-1904) and received a Ph.D. degree from that institution in 1904.

Dr. Clifton Howe was an instructor in the Biltmore Forest School (1905-1906) and the Assistant Director (1907-1908). He was a Lecturer in Botany and Forestry at the University of Toronto (1908-1912). In 1913 he was appointed an Assistant Professor in the Faculty of Forestry and in 1916 Associate Professor. In 1920 he became Professor and Dean of the Faculty of Forestry - a position he held until 1940. At a convocation in May 1943 the University of Toronto conferred on him the degree of Doctor of Laws, honoris causa, in recognition of his many contributions to Canadian forestry.

On 22 February 1946, Clifton Howe died in Toronto, Ontario, Canada. He is recorded here because of his early Vermont hepatics list. His career in later life was devoted to various aspects of Canadian forestry. His herbarium is at the New York Botanical Garden. There are also some of his specimens at the Field Museum of Natural History in Chicago, Ill. and at the Farlow Herbarium. (46, 52, 54, 125, 126, 144, 192)

Ethel Priscilla HUTCHINSON (1895-1966)

Ethel Priscilla Francois was born in Saugus, Mass., on 9 September 1895. Her father was a country doctor and, as a child, she often accompanied him on house calls. She was educated at home by private tutors and afterwards attended Oak Grove Seminary, Vassalboro, Maine. Her ambition was to be a physician, but due to the death of her father she was needed at home to care for her mother. She also was employed by the local telephone company.

Her first marriage was to Horace Baker. The couple lived in New York City, but spent summers at an old farm they owned in Canaan, N.H. They were later divorced.

In January 1936, Ethel decided to make the Canaan, N.H., property her permanent home. Since the house had no electricity, furnace, or indoor plumbing, there were many adjustments to make and new skills, such as snowshoeing, to be learned. She recalled sleeping in the kitchen in a fur coat that first winter. She had the house modernized and enjoyed exploring the 623 acre property.

Ethel recalled that she first became interested in mosses during the summer of 1937. She had been looking for a subject in which she could be absorbed for the rest of her life and she had found it. Eventually she became a correspondent of E. M. Dunham (q.v.), A. L. Andrews (q.v.), Henry S. Conard and many other bryologists throughout the world. She considered herself A. J. Grout's (q.v.) "last living pupil." By this she meant that she was the last person to receive moss lessons at his home in Newfane, Vt., when he was in residence there. Grout expected his pupil to write down all her observations on a moss and also the steps used to key it out. Four specimens constituted a lesson and he charged fifty cents for each specimen. In the early 1960's Ethel gave lessons, by mail, to several New England residents. She followed Grout's method and price schedule.

Since Ethel discovered places in New Hampshire and Vermont that were near her home were also good bryophyte habitats, she was able to build up an herbarium and also have material for exchange. As her reputation as a "mossback" became known locally she was often asked about a good beginning bryology book. Remembering her own experiences she decided to prepare a comprehensive book on the subject. Her manuscript, *A Guide to the Study of Mosses*, illustrated with her own camera lucida draw-

ings, was given to Dr. Howard Crum and is now at the University of Michigan Herbarium. Ethel's herbarium, library and slide collection were bequeathed to Anna Murphy Reid of Lexington, Mass., one of her pupils.

In 1938 Ethel married Fred R. Hutchinson, the local postmaster. He shared her home, Brighthollow, until his death in 1962. Mrs. Hutchinson died in Hanover, N.H., on 31 October 1966.

In addition to her personal study of bryophytes, Mrs. Hutchinson prepared the elaborate exhibits of mosses and hepatics that were a feature attraction of the Canaan, N.H., Fair in the 1950's. One of these exhibits was enjoyed by participants in the 1956 American Bryological Society Foray which Ethel led, assisted by Elizabeth Sherrard and Hannah Croasdale (209). Until the 1986 Foray, held in Vermont, this was the only field trip held by the Society in New England. She published an article describing her method for sectioning moss leaves in *The Bryologist* (130). She also helped in the determination of many of the mosses collected by E. M. Sherrard in Alaska in 1951 (209, 210). Ethel Hutchinson was one of the compilers of the index to the first sixty volumes of *The Bryologist*.

Ethel enjoyed all aspects of rural life. She swam in her own lake, helped organize a local nature club and was a member of the Canaan Methodist Church. She maintained an interest in ballet which she had studied for a long period in her youth. In 1952 she was granted permission to study as an "observer" at the Dartmouth Medical School, the first woman to be admitted. For two years she took courses in such subjects as neuroanatomy even though she realized she would never become a physician.

Mrs. Hutchinson was one of only a few and probably the best known New Hampshire bryologist for the almost thirty years she resided there (1937-1966). She was acquainted, by correspondence and by specimen exchanges, with other bryologists both in the United States and abroad even though she published very little. (63, 112, 129, 130, 160, 193, 194, 195, 209)

George Golding KENNEDY (1841-1918)

George Golding Kennedy was born in Roxbury [Boston], Mass., on 16 October 1841, the only son amongst the five children of Donald and Ann (Colgate) Kennedy. George attended Roxbury Latin School, then under the direction of Augustus H. Buck. In 1860

he entered Harvard College and was the recipient of an A.B. in 1864 and an A.M. in 1867. In that same year, 1867, Harvard Medical School granted him an M.D. On 28 February 1865 he married Harriet White Harris, daughter of Benjamin C. and Harriet (White) Harris, and the couple were the parents of five children. Mrs. Kennedy died on 23 November 1910.

While at Harvard, Kennedy attended botany classes conducted by Asa Gray. This contact undoubtedly strengthened his interest in plant life. The earliest specimen in Dr. Kennedy's herbarium was collected in 1862 when he was a sophomore at Harvard. Throughout his life his herbarium was "the object of his constant solicitude and attention" (220). On 21 January 1864 Asa Gray wrote to Charles Wright in Cuba (220):

> By the steamer of Saturday, which takes this, a good young fellow, Mr. Kennedy, a member of our Senior class, goes to Cuba to look after business of his father, and, when he can, to botanize, only four or five weeks. That is, in vacation. He is very fond of botany, and bids fair to be a botanist some day, if he does not take to money making instead.

After practicing medicine for a short time Kennedy retired from this profession and occupied himself in the management of his father's business, the manufacture of medicines (16), and his own growing estate. He was thus able to devote a good portion of his time to botanical and literary studies. In 1879 he moved from the old family home in Roxbury to a sizeable estate, "The Pines," in Milton, Mass., where he built a large house for his family. It was at "The Pines" and the surrounding area that he spent most of his time when he was not travelling. He made a number of trips to Europe and the other countries that border the Mediterranean Sea (1872-1905). There were also frequent visits to areas of botanical interest in the eastern United States, especially New England. In 1896, when the New England Botanical Club was formed, he was a charter member. Sometimes by himself and sometimes with other Club members he made frequent collecting trips to Vermont, New Hampshire, western Massachusetts and Rhode Island. Details of these trips are recorded in his botanical journals (1896-1915).

In addition to the collections of bryophytes and higher plants, Dr. Kennedy was also a collector of books. Not only did he search for valuable botanical volumes, he also sought out

Shakespeariana and specialized works in other areas of interest to him. He had a reading knowledge of Greek and Latin and always kept a Greek New Testament with him. In his literary pursuits he had the advice of his close friend and botanical associate, Edwin Faxon (q.v.), himself a bibliophile. Kennedy left the greater part of his botanical library to the Gray Herbarium.

George Golding Kennedy belonged to many clubs, especially those with a botanical or natural history orientation. To these groups he gave both time and money. He was devoted to the New England Botanical Club and regularly attended the meetings until physical infirmities made this impossible.

In 1896 [1897] Dr. Kennedy became a member of the first Visiting Committee of the Gray Herbarium and was Chairman of the Committee in 1914 when the Gray Herbarium Library wing was dedicated. This was his gift to Harvard College on the fiftieth anniversary of his graduation.

Doctor Kennedy's herbarium was basically a record of his own collections. Although he could have afforded the purchase of specimens from dealers and professional plant collectors, he rarely did so and built up his herbarium by personal field work. Most of his specimens were gathered in New England.

A number of years before his death Dr. Kennedy gave his moss collection (ca. 16,000 packets) plus a number of valuable cryptogamic books to the Farlow Herbarium and Reference Library at Harvard. In 1917 he gave his flowering plant specimens to the Gray Herbarium with the provision that specialized local flora collections, such as his Willoughby Lake, Vt., specimens would be transferred to the New England Botanical Club Herbarium.

George Golding Kennedy died in Milton, Mass., on 31 March 1918.

Doctor Kennedy, or Geo. G. Kennedy as he usually signed himself, is included here for his collections of New England mosses. He wrote a number of articles for *Rhodora*, most dealing with higher plants. In the first volume of *Rhodora* he described a new moss species, Pottia randii, named for the collector, E. L. Rand (q.v.) - (Pottia randii Kenn. [= Desmatodon randii (Kenn.) Laz.]) (134). In volume three of *Rhodora*, he and J. F. Collins (q.v.) reported on their bryophyte collections from Mt. Katahdin, Maine., (137). (19, 124, 134, 136, 137, 172, 220)

Annie LORENZ (1879-1927)

Annie Lorenz was born on 5 February 1879 in Brooklyn, N.Y. She was the daughter of William A. and Mary Wilcox (Green) Lorenz. Early in her life the family moved to Hartford, Conn., and she was educated in private and public schools in that city. Her first botanical publication was an article in her high school newspaper on the flora of the high school grounds (143). She graduated from Hartford High School in 1897.

As a young girl, Annie Lorenz spent several summers at Willoughby Lake, Vt. Both G. G. Kennedy (q.v.) and Edwin Faxon (q.v.) were her teachers in the field. Dr. Kennedy's interest in mosses may have influenced her choice of another group of bryophytes, the hepatics, as her special field of study. She became a member of several New England botanical and hiking clubs and most of her collecting was done on their field trips. As gathering bryophytes is a time-consuming process, she was somewhat handicapped by the desires of the group as a whole. Miss Lorenz also was near-sighted. Nevertheless she became one of the foremost American amateur hepaticologists of her time. Although she did not describe any new species, Douin (77) named in her honor Cephaloziella lorenziana [Excluded], which she collected in West Hartford, Conn., on 24 June 1911. Her work was also known and respected by A. W. Evans (q.v.) of Yale University. She sent to the Herbarium of the New York Botanical Garden packets of her rarer collections and also her additions to the hepatic flora of the New England States. She provided living specimens of Ricca to Marshall A. Howe which he raised to maturity for his study of that genus published in the *North American Flora.*

Annie Lorenz's published papers were largely annotated lists of hepatics and she did add a number of species to the New England hepatic flora. Many of her articles were illustrated with her own drawings. She was considered to be an excellent artist and had prepared a series of illustrations, some in color, of all the then-known New England hepaticae. Several small volumes of her free-hand water-color drawings of the liverworts were displayed at the Boston AAAS meeting in 1909. Her library, herbarium and drawings were given to Yale University by her father after her death in Hartford, Conn., on 11 June 1927.

In addition to her hepatic studies, Annie Lorenz maintained a large garden at her Hartford home. She was also fluent in Spanish, played the piano, sang and was an active member of the Congregational Church. (22, 77, 115, 143, 214, 225)

Charles Johnson MAYNARD (1845-1929)

Charles Johnson Maynard was born on 6 May 1845 in West Newton, Mass., and was educated in public schools. He was an instructor in biology at the School of Biology in West Newton, Mass., from 1880 to 1902. After 1902 he served as instructor in nature study and evolution at the State Normal School, Framingham, Mass. Mr. Maynard died on 15 October 1929 after an illness of several months.

Mr. Maynard had diverse interests. He is best remembered as an ornithologist, and he was especially interested in the structure of the sound-producing organs of birds such as the American bittern. In 1868 he discovered among the sand dunes of Ipswich, Mass., the Ipswich Sparrow, which for many years afterward was considered extremely rare (182). This interest in structure extended to molluscs and he made special studies of the Carionidae (a family of pupa-shaped land snails) of Bermuda. Charles Maynard was said to have had his own way of doing things, and his own ideas regarding nomenclature and classification, which, in some cases, led to conflict with other conchologists. He also wrote on general natural history subjects, sponges, insects and mosses.

One of his books, *Methods in Moss Study*, was prepared as an aid to his pupils in moss study. It included instructions and illustrations for the microscopic study of moss structures and functions but it is not a key or a manual. Elizabeth Dunham (q.v.) credited him as one of the two people [the other being Walter Gerritson (q.v.)] who helped her in her early bryological studies.

Charles Maynard belonged to such local groups as the Newton Natural History Society and the Boston Society of Natural History which gave him contact with local students of bryology. (53, 132, 146, 147, 182)

George Elwood NICHOLS (1882-1939)

Southington, Conn., was the birthplace of George Elwood Nichols. He was born on 12 April 1882, the son of the Reverend George Edward and Mary Estelle (Smith) Nichols. He prepared at Hillhouse High School in New Haven, Conn. Yale University conferred upon him an A.B. in 1904. He attended the Yale Graduate School (1904-1909) and was granted a Ph.D. in 1909. He was an Assistant in Botany (1905-1909) and also a Proctor (1906-1909) at this institution.

On 23 June 1909, in New Haven, Conn., he married Grace Elizabeth Walker. George Nichols was associated with Yale University during his entire professional career. He was an Instructor (1909-1915); Assistant Professor (1915-1924); Associate Professor (1924-1926); Professor (1926-1939) and Eaton Professor of Botany (1936-1939). He also served as Chairman of the Department (1927-1939) and Director of the Marsh Botanic Garden (1926-1939).

George Nichols was a member of many professional societies and was serving as president of the Sullivant Moss Society (now the American Bryological and Lichenological Society) at the time of his death.

During George Nichol's student days at Yale, A. W. Evans (q.v.) was on the staff and he associated with this famous hepaticologist. There was also the legacy of the earlier work of D. C. Eaton (q.v.). It seems natural that Nichols should have become interested in bryophytes. In 1908, while still a graduate student, he co-authored *The Bryophytes of Connecticut* with Professor Evans (88). This book provided keys to aid in the identification of mosses and hepatics at a time when few such keys existed, especially for New England. The publication had a wide distribution and is still of use today. Dr. Nichols continued his work on Connecticut mosses and published four papers on this subject in *Rhodora* (1910-1913).

During World War I Nichols advised the American Red Cross on the use of Sphagnum for surgical dressings. Steere (200) indicates that Nichols had an excellent field knowledge of this genus and its distribution in the eastern United States. Also Dr. Nichols worked in Nova Scotia and published on its bryophyte flora.

In 1920 Nichols began teaching courses on algae and bryophytes at the University of Michigan Biological Station located at Douglas Lake, Mich. Over the years this program, initiated by Nichols, kindled a lasting interest in bryophytes in many of the nation's amateur and professional bryologists.

Soon after graduating from Yale, Nichols enrolled at the University of Chicago, Chicago, Ill. (1910). An instructor there, Henry C. Cowles, developed Nichol's interest in another career field, plant ecology.

George Nichols died on 20 June 1939 at New Haven, Conn., following surgery. His herbarium is preserved at Yale.

One of Dr. Nichols' contributions to New England bryology is his book on Connecticut bryophytes. The initiation of the Douglas Lake summer program in bryology is an indirect contribution. His publications on plant ecology, for which he is better known to botanists in general, include data on bryophytes as well as the higher plants. He was a pioneer in the recognition of the ecological importance of bryophytes. (25, 33, 88, 127, 145, 151, 187, 200, 201, 204, 225, 226)

William OAKES (1799-1848)

Danvers New Mills [now Danvers], Mass., was the birthplace, on 1 July 1799, of William Oakes, son of Caleb and Mehitable (Pope) Oakes. He was educated in the Danvers, Mass. public school. After a few additional months of instruction under Benjamin D. Oliver, a Danvers lawyer, he entered Harvard College in 1816. While in college Oakes was much influenced by William Dandridge Peck, director of the Botanic Garden at Cambridge, Mass., and Professor of Natural History. After graduation in 1820 he studied law at Harvard for two years and spent the next year in the office of the Hon. Leverett Saltonstall in Salem, Mass. In January 1824 he moved to Ipswich, Mass., and began the practice of law. On 12 April of that year he married Sarah Phillips Farley, the widow of William Treadwell. They had four children. After two or three years he abandoned the practice of law for the study of plants. He resided in Ipswich for the remainder of his life.

Oakes confined his botanical collecting primarily to New England. As early as 1827, in his correspondence with J. W. Robbins (q.v.) (155), he projected a flora of New England. By 1830, he was exploring the alpine regions of the White Mountains of New Hampshire. He also collected in Maine, Vermont, Massachusetts and Connecticut.

In addition to the many new flowering plants he discovered, Oakes was a collector of mosses and hepatics. Although he published only one bryophyte paper (157), Oakes corresponded with W. S. Sullivant and supplied him with mosses and hepatics. Sullivant published many of the New England bryophytes in his exsiccatae. Oakes was very generous in the distribution of his plants to other botanists and his collections are therefore preserved in many herbaria. It is for his carefully prepared specimens that he is best remembered.

In the surviving letters from W. Oakes to J. W. Robbins (q.v.) (155), which span a period of twenty years, one can get

a glimpse of the development of their friendship. At the time the first letter was written, Oakes was twenty-eight and preparing to give up the law. Robbins was twenty-five and a half and preparing for an M.D. at Yale. Oakes provided Robbins with advice on collecting and preserving plants. Exchanges of plants and the sharing of botanical tidbits began.

Ipswich 1 July 1827

Dear Sir,

I got home in 28 hours after I left New Haven [180 miles] but have been so incessantly engaged that I have had no time to write until now - nor indeed now - for I start for New Hampshire tomorrow morning. As to the plants which I wish you to collect for me ... any plant Eaton has not in New England... [Eaton, A. 1824. *Manual of Botany for the Northern and Middle States of America.* 4th edition.]

W. Oakes

White Mountains 13 Sept. 1846

...I had the pleasure the other day of finding on a rock in the horse path to Mt. Washington in the woods a fine tuft of Splachnum angustatum [= Tetraplodon angustatus (Hedw.) B.S.G.] growing on the bones of some small animal...

Ipswich 19 Feb. 1847

...As to naming plants after you which you deprecate, I shall not attempt it for the present, unless I should get a genus. ... Proper names are the best names that can be given to plants and the easiest remembered are those of men. ...

This is the last extant letter written to Dr. Robbins and perhaps the last one Oakes wrote (155):

Ipswich 9 Aug. 1847

I send you with this the first step of my White Mountain doings. Nothing but

> the want of plates (Sprague being unable to stay long enough at the Mountains) has prevented [me] from finishing a year ago. He is now gone up and I hope to wash my hands of most of the White Mountain concern next spring. ...

Oakes died in an accident 31 July 1848. He apparently suffered an attack of vertigo and fell overboard from the ferry in Boston harbor. Five days before his death he wrote the preface to his *Scenery of the White Mountains* (158) which was published in quarto form.

Perhaps because he was a very precise and careful worker Oakes never published the text of the New England flora. However the legacy of his collections remains. Oakes' specimens of mosses and hepatics were purchased by W. S. Sullivant from the executor of his estate in 1849. These were in addition to the material Sullivant received in exchanges during Oakes' lifetime. The Farlow Herbarium at Harvard probably has the largest number of Oakes' bryophytes today due to the acquisition of the herbaria of Sullivant, the Boston Society of Natural History and various nineteenth century botanists. (7, 33, 37, 43, 83, 97, 99, 106, 128, 155, 156, 157, 158, 159, 177, 218)

Stephen Thayer OLNEY (1812-1878)

Stephen Thayer Olney was born in Burrillville, R.I., on 15 February 1812 [1813 (58)]. He was the son of Stephen and Polly (Thayer) Olney and a descendent of Thomas Olney, one of the earliest settlers in Providence, R.I., who in 1688 was ordained minister of the First Baptist Church in the Rhode Island Colony. Stephen T. Olney was educated in Providence.

In business he was first employed in Augusta, Ga. Later he and Jesse Metcalf founded, in Providence, the Wauskuck Company, which was a manufacturer and seller of woolen goods. Olney was a prosperous and wealthy businessman and used his resources to acquire books, specimens and equipment to aid in his botanical studies. He was president of the Providence Franklin Society (1859-1869), and it was for the botanical department of this group that he compiled a list of higher plants collected by the members in Rhode Island (1845; supplements 1846, 1847). In 1871 he published a list of Rhode Island algae.

Although his publications and exsiccatae did not include bryophytes, he was a correspondent of William Sullivant to whom

he sent mosses. One of these, collected by Olney at Smithfield, R.I., was described by William S. Sullivant as a new species and named Grimmia olneyi in his honor. His correspondence with Moses Ashley Curtis indicates Olney's desire to receive any mosses from Curtis' locality that he might like to share. Olney also collected for Asa Gray who named the leguminous tree genus, Olneya, native to the southwestern United States, after him.

Olney never married. He was mentally incapacitated and unable to engage in his business during the last years of his life. He left his herbarium, library of seven hundred and twelve volumes and laboratory equipment to Brown University under the condition that it be kept in a fire-proof building. Money was also provided for the increase and care of the collection. In addition he provided money for a Professorship in Natural History at Brown University. In recognition of these gifts Brown conferred on him an honorary M.A. degree.

Olney's herbarium was the nucleus around which Brown's herbarium was founded in 1878. For New England bryology his collections of Rhode Island bryophytes provide the earliest systematic collections for the state.

Stephen T. Olney died in Providence, R.I., on 27 July 1878. (33, 36, 42, 43, 58, 62, 72, 100, 127, 128, 183)

Jacob PORTER (1783-1846)

Jacob Porter was born in Abington, Mass., on 30 December 1783. He was the elder son of Seth and Mary (Cobb) Porter. He entered Williams College as a sophomore, but soon transferred to Yale where his name appears in the Catalogue of November 1802. By this time his family had moved to Cummington, Mass.

After completing his studies at Yale (A.B. 1803), he removed to Plainfield, Mass., formerly a part of Cummington. Porter studied medicine and, although he was a practicing physician, most of his time was devoted to botany, mineralogy and literature. He published in all three of these areas.

Porter was a member of several scientific societies and was elected a corresponding member of the Lyceum of Natural History of New York in 1820. He was a correspondent of John Torrey and sent specimens from the Plainfield area to him. In Edward Hitchcock's (q.v.) 1833 report on the natural resources of Massachusetts one finds Porter's name as a contributor to the lists of mosses, fungi and lichens. He also assisted the

young Edward Tuckerman in the identification of mosses and lichens.

Jacob Porter married Betsey Mayhew in January 1813. She died less than six months later. He married Sally Reed on 18 November 1819. They had three daughters, only one of whom lived to adulthood.

Several bryophyte collections made by Jacob Porter were in the Herbarium of the Boston Society of Natural History now incorporated into the collection of the Farlow Herbarium. He died on 15 November 1846 in Plainfield, Mass. (74, 161)

Cyrus Guernsey PRINGLE (1838-1911)

Cyrus Guernsey Pringle was born on his grandparents' farm in East Charlotte, Vt., on 6 May 1838. He was the descendant of strong-willed New England farmers. It is reported that as a boy he wandered around the local fields and woods composing poetry. His early education was obtained at Hinesburg, Vt., and Stanbridge, Qué. In 1859 he enrolled in the Classics program at the University of Vermont. He was forced to withdraw after one semester because the death of his older brother necessitated a return to the family farm to help his widowed mother and younger brother. As a young man he became interested in the religious and moral doctrines of the Society of Friends of whom there were a number of members in his neighborhood. Cyrus Pringle agreed with the Quakers' opposition to war and violence, and the supremacy of conscience, and he joined the Society. One of the speakers at the Friends' Meetings was Almira Greene, a local schoolteacher. Pringle and Miss Greene, who was a native of Starksboro, Vt., were married on 25 February 1863.

On 13 July 1863 three Quakers from Charlotte, including Pringle, were drafted for service in the Civil War. An uncle, Captain Hewett, offered to pay the three hundred dollars required to keep him out of the military. However the offer was refused as Pringle's conscience would not allow him to have the money used to pay another man to serve in his place. In spite of appeals the Army brought him first to Long Island (in Boston Harbor) and later to Virginia. His diary covering this period recounts some of the unusual tortures and punishments he endured (163):

> ...it can but give me pain to be asked or required to do anything I believe to be wrong.

On 6 November 1863 Isaac Newton, the Commissioner of Agriculture, who had taken an interest in the case of the Quaker conscripts, brought the situation to the attention of President Abraham Lincoln. Through his personal intercession the men were freed. Pringle's *Record* concludes with the following (163):

> ...Rising from my sick bed to undertake this journey, which lasted through the night, its fatigues overcame me; and upon my arrival in New York I was seized with delirium, from which I recovered only after many weeks, through the mercy and favor of Him who in all this trial has been our guide and strength and comfort.

In 1864 he was farming again on the family land. He devoted a great deal of time to plant breeding and was a pioneer in this field. Wheat, oats, grapes and especially potatoes were among the plants he experimented with, and he succeeded in developing many improved varieties. He also began to devote more and more of his time to the collection and study of the Vermont flora. Pringle had no formal training in botany and was a completely self-taught scientist.

In February 1872 Pringle and his wife separated. It was said that she wanted him to engage in "evangelistic work" and to travel from place to place, but he did not feel suited to this lifestyle. They were formally divorced on 16 October 1877, and his wife received custody of their only child, a daughter. Many years later Pringle confided to a close correspondent [George E. Davenport] that the real problem was his wife's growing impatience with the time and money he devoted to plants.

A letter dated 2 November 1873 to George E. Davenport of Boston, quoted by Dodge (75) permits us to see how Pringle's life was evolving:

> May I introduce myself as a young farmer, hardly a farmer by choice, for my college studies were terminated abruptly by the death of a brother, our mother's chief dependence on the farm, and our circumstances seemed to render it imperative that I should take his place. My taste has led me to give my farming a decidedly horticultural character, and from horticulture I have gone on to botany. ...I have studied

> our Vermont flora and have collected as a foundation of an herbarium, about half of the plants of this state.

After years devoted to breeding and cultivating plants he joined the Massachusetts Horticultural Society in 1873. He was thus brought in touch with people like George E. Davenport who were pleased to have him collect rare plants for them. For the next sixteen years he devoted more and more time to the Vermont flora. During this time Pringle discovered the rare plant communities of Smuggler's Notch and re-explored the cliffs at Willoughby. Both Edwin Faxon (q.v.) and his brother, Charles Edward Faxon, later visited Smuggler's Notch with Pringle. His success in locating rare plants and careful preparation of specimens caused Pringle's fame as a collector to spread and brought him to the attention of such leaders in the field as Asa Gray.

> ...If Smuggler's Notch offered the rarest of flowering plants, it yielded lichens no less rare -- stragglers left behind, when species retreated to the shores of Labrador. So too, of mosses, which a good authority of that day was eager to receive from me and name (162).

In the fall of 1880, although Pringle had not, to his satisfaction, finished the exploration of the Vermont flora, he embarked on an expedition to Arizona and most of the rest of his collecting life was devoted to the Mexican flora. For twenty-six years Pringle journeyed in Mexico. Davis (71) provides a record of these Mexican years. In a life-time Pringle is said to have collected over a half-million plants for distribution to herbaria, museums and scientific institutions throughout the world. About twelve percent of the 20,000 species he gathered were new to science.

Pringle retained many of the best specimens in a large room at the family farm. Horsford recalls a visit with him at his herbarium (123):

> I remember one day in the old buck house when he brought out with mock appreciation a collection of mounted plants from the Sandwich Islands, ornate with grasses and mosses. To my questioning expresssion he replied: "These are a gift from a feminine friend and a valuable collection for

> they please the ladies and keep their fingers off my specimens."

In 1902 Pringle accepted the offer of a modest salary and herbarium expenses from the University of Vermont. He moved with his collection of over 150,000 specimens into new living quarters on the top floor of the Williams Science Hall. The University of Vermont conferred upon him an honorary degree of Doctor of Science in 1906.

With advancing age he was increasingly bothered by rheumatism and sciatica. Nevertheless he was planning another trip, this time to South America, when he died on 25 May 1911 at Burlington, Vt.

The Pringle Herbarium at the University of Vermont was named in his honor and includes a set of his collections. Asa Gray called him "the Prince of Botanical Collectors." Pringle's advice to botanists is recorded in the last sentence of his speech to the Vermont Botanical Club (162):

> ...Yet share the secret of success of an old collector, quit the broad plain of dull sameness, seek out every possible situation of exceptional character, and look to find amidst peculiar conditions rare and localized plants.

Cyrus Pringle is recorded here for his valuable early collections of Vermont bryophytes. (47, 56, 71, 75, 84, 123, 162, 163)

Edward Lothrop RAND (1859-1924)

On 22 August 1859 in Dedham, Mass., Edward Lothrop Rand was born to Jennie Augusta (Lothrop) and Edward Sprague Rand, Jr. He prepared at the Hopkinson School in Boston and entered Harvard College in 1877. From Harvard he received an A.B. in 1881, an LL.B. in 1884 and an A.M. in 1884. He was admitted to the Massachusetts bar in 1885 and practiced law in Boston until 1921 when he was forced to retire due to ill health. It was from the law office that he carried on not only his legal work, but also his botanical correspondence. Since he did not believe in using typewritten material, his letters were all handwritten. On 29 June 1893 he married Annie Matilda Crozier who died on 12 May 1921. That autumn Mr. Rand became paralyzed, and he

remained an invalid until his death on 9 October 1924 at the Episcopalian Home in Cambridge, Mass. The couple did not have any children.

It is said that even as a child Rand was interested in nature, especially plants. His first serious effort at plant study occurred in the summer between his junior and senior years at Harvard. That year, 1880, he camped at Somes Sound, Mt. Desert Island, Maine, with several other Harvard student naturalists. These young men had formed the Champlain Society the aim of which was to prepare a natural history catalogue of Mt. Desert Island. At that time the area was, for the most part, in a natural state and had not been developed as a summer colony. There were never more than twenty or twenty-five members of the Society but only about ten or twelve would be in the camp at one time. Each year from 1880 to 1890 they worked on the project and produced a report of the year's activities. The botanical section of the Champlain Society collected and prepared specimens during the summer and worked on identifications at the Harvard houses during the winter. In addition to higher plants Rand also collected bryophytes for inclusion in the catalogue.

The first "working list" was drawn up by William H. Dunbar in 1880, and Rand was a contributor. He was the editor of the succeeding lists. The fourth report (164) issued in 1888 included a list of mosses prepared by Walter L. Burrage. Rand was one of the collectors. Eventually many of the Champlain Society members moved to places distant from Mt. Desert Island or developed other interests, and the group disbanded. The botanical work was passed on to Rand in 1888. Edward L. Rand, as he signed himself, published four annual supplements (1889-1892) to the 1888 report (165, 166, 167, 168). These included additional bryophytes as they were added to the flora. Such experts as Dr. Carl Warnstorf, at the request of E. Faxon (q.v.) and Elizabeth Gertrude Britton, helped with identifications.

In 1882 John H. Redford of Philadelphia, began an independent study of the Island flora. Rand and Redford joined forces toward the end of 1888 and in 1894 succeeded in having printed *The Flora of Mt. Desert Island, Maine* (169). This work also included hepatics some of which Rand had collected. Lucien M. Underwood assisted in their identification. Rand also prepared the Musci and Sphagna lists for inclusion in the *Flora of the Blue Hills* (73).

In 1914 Edward L. Rand gave his collection, including the lower plants, to the New England Botanical Club. He was a charter member of this organization, served on the board that founded *Rhodora*, the Club's journal, and was corresponding secretary for the first twenty-six years of the Club's existence.

It is important to note that Edward L. Rand preserved a record of the flora of this unique area, by specimens and text, before the large-scale activities of man had altered the environment. (20, 73, 124, 164, 165, 166, 167, 168, 169, 175)

James Watson ROBBINS (1801-1879)

James Watson Robbins, the son of Ammi R. and Salome Robbins, was born in Colebrook, Conn., on 18 November 1801. He graduated from Yale College and for a few months after that he taught in Enfield, Conn. He then moved to Virginia where he was employed as a tutor by several wealthy families. Robert E. Lee, the Confederate general, was prepared for West Point by Robbins. While in Virginia he also belonged to a small local group that documented the flora of the Washington, D.C. area (48).

After returning to Connecticut in 1825 he began the study of medicine at Yale and received an M.D. in 1828. In 1829 he spent about six months botanically exploring New England. William Oakes (q.v.) in his history of Vermont botany recalls this expedition (156):

> The collections [were] made by James W. Robbins, M.D., of Uxbridge, Mass., who in the year 1829 examined with the greatest care and success the whole western border of Vermont, from Massachusetts to Canada. Dr. Robbins entered the state at Pownal, on the 20th of May, and passing slowly along the western border to the Canada line, examined the large islands of lake Champlain, and afterwards visited Camel's Hump Mountain, leaving the state at Windsor on the 10th of June. On the 20th of July he again entered the state at Guildhall, and after examining the southern border of lake Memphremagog, and the towns in that vicinity, he visited Mansfield Mountain. From thence he proceeded to Burlington and Colchester, where he first discovered the remarkable

> botanical region at High Bridge and Winooski falls, so rich in rare and interesting plants, and after examining the shores of the lake and the islands of South and North Hero, he visited the mouth of Otter Creek, and, proceeding along the western range of towns from Shoreham to Pownal, left the state at Brattleboro on the 23rd of August. Dr. Robbins found and collected a vast number of rare and interesting species, a large part of which were additions to the Flora of New England, and many of them were also new to the United States."

During this exploring activity he met Dr. George Willard of Uxbridge, Mass., who persuaded Robbins to settle in that town. At first he practiced medicine in partnership with Dr. Willard but later Robbins opened his own practice. After thirty years service in Uxbridge Robbins accepted a position as physician and surgeon for several copper mining companies near Lake Superior. He spent four years in Michigan and continued his botanical studies. In 1863-1864 he travelled down the Mississippi and eventually visited Texas and Cuba. He then returned to Uxbridge where he spent the rest of his life. Then semi-retired from medicine he devoted most of his time to botany. He died at Uxbridge, Mass., on 10 January 1879 from a kidney ailment. James Watson Robbins never married.

In 1872 Robbins' herbarium was divided - part was sent to Mount Holyoke College, South Hadley, Mass., and part to the South Natick [Mass.] Historical and Natural History Society. Recently the South Natick portion was given to the New England Botanical Club Herbarium. The Club deposited bryophytes collected outside the New England area in the Farlow Herbarium, while those from the New England states were incorporated into the Club's bryophyte collection.

In addition to his valuable New England plant collections Robbins had gathered a very extensive botanical library. In a commentary on Robbins' death Asa Gray wrote (101):

> ...in his death we have lost the most critical student of the botany of the Northeast and the north Atlantic States.

(9, 33, 48, 53, 72, 101, 156, 159)

John Lewis RUSSELL (1808-1873)

John Lewis Russell, a son of John and Eunice (Hunt) Russell, was born in Salem, Mass., on 2 December 1808. His paternal grandfather, William Russell, was one of the "Sons of Liberty" who assisted in the destruction of British tea in Boston Harbor on 16 December 1773. John Lewis was enrolled in the Latin School in Salem in 1819. The following year the family moved to Amesbury, Mass., and the boy was placed under the tutelage of "Master Pike" in the Academy at Newburyport, Mass. He finished his preparation for college with Rev. Mr. Barnaby, a Baptist clergyman in Amesbury. Russell entered Harvard College in 1824 and received an A.B. in 1828 and an A.M. in 1836. He studied theology at the Harvard Divinity School from which he was graduated in 1831. The Rev. Mr. Russell was one of the earliest Unitarian clergymen in Massachusetts and served at a number of churches mostly in New England (1831-1853). His longest tenure was at the Sacred (South) Parish in Hingham, Mass. (26 June 1842 - 1 September 1849).

In 1853, upon the death of his father, he returned to Salem, Mass., where he continued to reside until his death on 7 June 1873. After 1853 he preached only occasionally. On 4 October 1853 he married Hannah Buckminster Ripley of Greenfield, Mass. She survived him. The couple had no children.

From an early age John L. Russell is said to have been interested in botany and this interest was heightened by contacts with other students at Harvard. Russell's study as it was remembered by Wilson (223) was described as follows:

> [As] a lad sixteen or eighteen years old I was introduced into a clergyman's "study" in a country village in the north of Middlesex county. Somewhat familiar with the aspect of country clergyman's studies, I had never seen anything like this before. Of books there were enough; about the usual number of shelves and volumes, I think; I find I do not remember much of them. What I noticed more was that all the available room was filled with plants and flowers; green things and beautiful. In a corner stood fishing rod and tackle; and disposed in odd nooks, boxes, baskets, and cases, such convenient furnishing, it may be presumed, as the botanist and student of

> nature requires for his pursuits. The apartment was lovely as a garden; and when presently, the minister who wrote sermons there, and there opened the books of God's Scripture and Revelation in many kinds, came in, he was one to whom the place seemed befitting; hearty in his greetings, fresh, natural, radiant with health, bubbling as a fountain with spirits and humor, as if he knew the woods and pastures and streams for many a mile round about, as no doubt he did. He stood like a brother among the stalks and plumes, Nature's own child.

Cryptogamic botany was one area explored by Russell. He published several articles on New England mosses including one titled "Musci of Eastern Massachusetts" (197). A quote from Rodgers indicates that Russell had been a correspondent of W. S. Sullivant (177):

> ...Sullivant now had thirty-five sets of mosses prepared for distribution. He had sent the spring before [no date given, but after 1843] a "handsome set...(all correctly named)" to Mr. Russell, from whom he received a letter in acknowledgment with many alleged corrections. Sullivant regarded them as so much "moonshine," and in one instance, a "real joke." Quite a change [for Sullivant] from the modest, struggling "neophyte" of a few years previous, lacking confidence, whom Dr. Torrey and Dr. Gray had often disciplined.

Russell reviewed for *Hovey's Magazine* the revision of Gray's *Manual* published in 1848 (181). This edition included brief descriptions of the Musci and Hepaticae of the Gray's *Manual* area prepared by Sullivant.

After the formation of the Essex County [Mass.] Natural History Society in 1833, Mr. Russell served in several capacities, including president, and he continued to be an officer when the group merged with the Essex Historical Society in 1848 to become the Essex Institute.

In 1831 John Lewis Russell became a member of the Massachusetts Horticultural Society and in September 1833 was

chosen Professor of Botany and Horticultural Physiology, a position he held until his death forty years later. He left money, in trust, to the Massachusetts Horticultural Society, the interest from which was to be used to pay a speaker annually to lecture to the group on a topic relating to horticulture and fungi. He also left his private library, which was especially rich in cryptogamic books, to this society. Geneva Sayre (187) records that his bryophyte specimens are located in the Clinton Herbarium, Buffalo [N.Y.] Museum of Science, the Farlow Herbarium and the Pringle Herbarium at the University of Vermont. Rev. Mr. John Lewis Russell died at Salem, Mass., on 7 June 1873.

Russell's collections and articles are especially important as he was one of the earliest students of bryology in New England and especially in eastern Massachusetts. Edward Tuckerman was reported to have said of him (223):

> He was an earnest naturalist who gave all his power to the explication of vegetable nature, and when he began, it was here in New England almost wholly neglected and unknown.

(12, 28, 69, 72, 128, 176, 177, 179, 180, 181, 187, 197, 223, 226)

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BIBLIOGRAPHY

1. Allen, J. A. (compiler). 1893. *Check-list of the Plants of Gray's Manual.* Cambridge, Mass.: Herbarium of Harvard University. 130 pp.
2. Alumnae Biographic Records, Wellesley College. Wellesley, Mass.
3. Alumni Records, Williams College. Williamstown, Mass.
4. Anderson, L. E. 1960. Personal reflections on Alexander W. Evans. *The Bryologist* 63: 84-88. (portrait)
5. Andrews, A. L. 1913. Class Musci; Order Sphagnales; Family 1. Sphagnaceae. 1. Sphagnum. *North American Flora* 15 (1): 1-31.
6. _____. 1954. The bryophyte flora of the upper Cayuga Lake Basin, N.Y. *Cornell U. Agric. Expt. Sta. Mem.* 352: 1-87.
7. Anonymous. 1848. Obituary - William Oakes. *Mag. Hort. Bot.* 14: 430-431.
8. _____. 1864. Obituary - Edward Hitchcock. *Amer. J. Sci. Arts* ii 37: 302-304.
9. _____. 1879. *Obituary Record of Graduates of Yale College Deceased during the Academical Year ending June 1879.* p. 385.
10. _____. 1895. *Obituary Record of Graduates of Yale University Deceased during the Academical Year ending June 1895.* p. 396.
11. _____. 1901. Mrs. Sarah E. French. *Daily Free Press-Tribune* [Waltham, Mass.]. 12 January 1901.
12. _____. 1903. John L. Russell. *Meehan's Monthly* 3: 78-79.
13. _____. 1905. List of Sullivant Chapter members. *The Bryologist* 8: 14-16.
14. _____. 1907. Miss. Clara E. Cummings (Obituary). *The Bryologist* 10: 33-34.
15. _____. 1913. *Obituary Record of Yale Graduates 1912-1913.* pp. 491-492.
16. _____. 1916. Membership list - Sullivant Moss Society. *The Bryologist* 19: 15.
17. _____. 1916. Sullivant Moss Society Election. *The Bryologist* 19: 97.
18. _____. 1917. *Obituary Record of Graduates of Yale University 1916-1917.* pp. 452-454.
19. _____. 1918. George Golding Kennedy '64. *Harvard Alumni Bull.* 20: 595.
20. _____. 1924. Necrology. *Joint Bull. Vermont Bot. Bird*

Clubs 10: 31.

21. _____. 1925. Death notices for Edward B. Chamberlain. *New York Times.* 4 Feb. p. 21; 5 Feb. p. 19; 6 Feb. p. 17.
22. _____. 1927. _____. *Amer. Fern J.* 17: 141-142; _____. 1928. ibid. 18: 67.
23. _____. 1930. *General Catalogue of the Officers, Graduates, and Non-graduates of Williams College 1793-1930.* Williamstown, Mass.: The College. 389 pp. p. 165.
24. _____. 1940. Obituary - J. Franklin Collins. *Evening Bulletin* [Providence, R.I.]. 15 Nov. 1940. (portrait) (clipping in the New England Botanical Club files)
25. _____. 1940. *Obituary Record of Graduates of Yale University Deceased 1938-1939.* pp. 123-124.
26. _____. 1947. Note [death notice of Mrs. Annie Morrill Smith]. *The Bryologist* 50: 3.
27. _____. 1953. Obituary - Helen E. Greenwood. *Worcester* [Mass.]. *Telegram.* 26 Jan. 1953. (portrait) (clipping in Wellesley College Alumnae files)
28. _____. 1958. News and Notes. *The Bryologist* 58: 350.
29. _____. 1959. W. Gerritson Dies on Eve of 98th Birthday. *The News-Tribune* [Waltham, Mass.]. 2 Jan. 1959. pp. 1, 9.
30. _____. 1960. *Who Was Who in America.* Volume 3 (1951-1960). Chicago: Marquis-Who's Who. 959 pp. p. 265.
31. _____. 1966. Elizabeth M. Dunham. *The Townsman* [Wellesley, Mass.]. 24 Nov. 1966. p. 7.
32. _____. 1967. News and Notes. *The Bryologist* 70: 137, 139.
33. _____. 1972. *Biographical Dictionary of Botanists Represented in the Hunt Institute Portrait Collection.* Boston, Mass.: G. K. Hall and Co. 451 pp. (D. Cooley p. 82; C. E. Cummings p. 89; D. C. Eaton p. 112; A. W. Evans p. 119; W. G. Farlow p. 122; E. Faxon p. 123; C. C. Frost p. 134; A. J. Grout p. 154; G. E. Nichols p. 286; W. Oakes p. 291; S. T. Olney p. 294; C. G. Pringle p. 318; J. W. Robbins p. 333; J. L. Russell p. 342)
34. Archives of Wellesley College, Wellesley, Mass.
35. Austin, C. F. 1880. Bryological notes. *Bull. Torrey Bot. Club* 7: 15-16.
36. Bailey, W. W. 1880. The Herbari[u]m Olneyanum of Brown University. *Bull. Torrey Bot. Club* 7: 116-117.

37. Barnhart, J. H. 1921. Biographical notices of persons mentioned in the Schweinitz-Torrey correspondence. *Mem. Torrey Bot. Club* 16: 290-300. (D. Cooley, p. 291; E. Hitchcock, p. 294; W. Oakes, p. 297)
38. _____. 1965. *New York Botanical Garden - Biographical Notes upon Botanists.* Boston, Mass.: G. K. Hall and Co. Three volumes: I 563 pp., II 544 pp., III 545 pp.
39. Beal, W. J. 1901. Dennis Cooley. *Rep. Michigan Acad. Sci.* 2: 108. (portrait)
40. Beals, A. T. 1925. Edward Blanchard Chamberlain. *The Bryologist* 28: 43-50. (portrait)
41. _____. 1926. Mrs. H. C. Dunham - Our newly appointed associate editor. *The Bryologist* 29: 71.
42. Bennett, J. L. 1888. *Providence Franklin Society - Plants of Rhode Island.* Providence, R.I.: The Providence Press Co. 128 pp. (includes Sphagna and Musci pp. 59-65; Hepaticae and Anthocerotae pp. 66-69)
43. Bent, A. H. 1911. *A Bibliography of the White Mountains.* Boston, Mass.: Houghton Mifflin Co. 114pp. (W. Oakes, p.1; portrait facing p. 10)
44. Berzelius Society. 1878. *A Catalogue of the Flowering Plants and Higher Cryptogams Growing without Cultivation within Thirty Miles of Yale College.* New Haven, Conn.: Berzelius Society, Sheffield Scientific School. (bryophytes pp. 61-71)
45. Blakeslee, A. F., R. Thaxter, and W. Trealease. 1920. William Gilson Farlow. *Amer. J. Bot.* 7: 173-181. (portrait)
46. Blow, D. J. 1980. Personal communication. (Assistant Archivist, University of Vermont, Burlington, Vt.)
47. Brainard, E. 1911. Cyrus Guernsey Pringle. *Rhodora* 13: 225-232. (portrait)
48. Brereton, J. A. 1830. *Florae Columbiana Prodromus.* Washington, D.C.: Jonathan Elliot. 86 pp. (Preface)
49. Bridel-Brideri, S. E. 1826. *Bryologia Universa ...* Lipsiae [Leipzig], Germany: J. A. Barth. Volume I, pp. 274-275.
50. Burns, G. P. 1930. D. Lewis Dutton. *Joint Bull. Vermont Bot. Bird Clubs* 14: 71-72. (includes a reprint of obituary from Burlington [Vt.] Free Press - 15 Oct. 1929)
51. Cabot, M. R. (compiler and editor). 1921. *Annals of Brattleboro 1681-1895.* Brattleboro, Vt.: E. L. Hil-

dreth and Co. Volume I. Charles C. Frost - The Learned Shoemaker. pp. 476-479.

52. Cattell, J. (editor). 1944. *American Men of Science.* 7th edition. Lancaster, Pa.: Science Press. 2033 pp. p. 854.
53. Cattell, J. M. (editor). 1906. *American Men of Science.* New York: Science Press. 364 pp. p. 214.
54. _____ and D. R. Brimhall (editors). 1921. *American Men of Science.* 3rd edition. Garrison, N.Y.: Science Press. 808 pp. p. 335.
55. Chapin, A. C. et al. 1907. In memoriam - Clara Eaton Cummings. *College News* [Wellesley College, Wellesley, Mass.] 6(16): 1, 7 (6 February).
56. Charette, L. A. 1962. Pringle and his herbarium. *Univ. Vermont Alumni Mag.* 42(4): 4-7. (portrait)
57. Clinton, G. P. 1920. William Gilson Farlow. *Phytopathology* 10: 1-8. (portrait)
58. Collins, J. F. _____. Birth date of Stephen Thayer Olney 15 Feb. 1813. Historic files of New England Botanical Club.
59. _____. 1899. Notes on the bryophyte flora of Maine. I. *Rhodora* 1: 33-36. (first article on bryophytes to appear in *Rhodora*)
60. _____. 1901. Notes on the bryophytes of Maine. II. Katahdin mosses. *Rhodora* 3: 181-184.
61. Conard, H. S. 1947. History of the Sullivant Moss Society - compiled from the files of The Bryologist and other archives of the Society. *The Bryologist* 50: 389-401.
62. C[oulter], J. M. 1880. Brown University Herbarium. *Bot. Gaz. (Crawfordsville)* 5: 149-150.
63. Croasdale, H. 1980. Private communication. (Professor Emeritus, Dartmouth College, Hanover, N.H.)
64. Cummings, C. E. 1885. *Catalogue of the Musci and Hepaticae of North America, North of Mexico.* Natick, Mass.: Howard and Stiles. 24 pp.
65. _____. 1886. Hypnum Barberi. *Bot. Gaz. (Crawfordsville)* 11: 68.
66. _____. 1886. Method of collecting [mosses]. *The Bryologist* 11: 141.
67. _____. 1888. List of Musci and Hepaticae. In L. L. Dame and F. S. Collins. *Flora of Middlesex County, Massachusetts.* Malden, Mass.: Middlesex Institute. 201 pp. pp. 139-150.
68. Davenport, E. B. 1904. Recollections of Charles Christ-

opher Frost. *Rhodora* 6: 25-27. (portrait)
69. D[avenport], G. E. 1881. The herbaria and botanical libraries of the United States. IV. The Massachusetts Horticultural Society. *Bull. Torrey Bot. Club* 8: 30-32.
70. _____. 1895. Daniel Cady Eaton. *Bot. Gaz. (Crawfordsville)* 20: 366-369. (portrait)
71. Davis, H. B. 1936. *Life and Work of Cyrus Guernsey Pringle.* Burlington, Vt.: University of Vermont Press. 756 pp. (Life of C. G. Pringle pp. 1-17. (portrait)
72. Day, M. A. 1901. Herbaria of New England. *Rhodora* 3: 67-71; 206-208; 219-222; 240-244; 255-262; 281-283; 285-288.
73. Deane, W. 1896. *The Flora of the Blue Hills, Middlesex Fells, Stony Brook and Beaver Brook Reservations of the Metropolitan Park Commission, Massachusetts.* Boston, Mass.: C. M. Barrows and Co. 144 pp. (Bryophyta. Musci by E. L. Rand pp. 115-125)
74. Dexter, F. B. 1911. *Biographical Sketches of the Graduates of Yale College. Volume V - June, 1792-September, 1805.* New York, N.Y.: Henry Holt and Co. 815 pp. (Jacob Porter pp. 603-606)
75. Dodge, B. S. 1971. Cyrus Guernsey Pringle - Portrait of a self-made scientist. *The New England Galaxy* 13 (2): 40-47.
76. Dole, E. J. 1928. Hepaticae of Vermont. *Joint Bull. Vermont Bot. Bird Clubs* 13: 28-62.
77. Douin, C. 1916. La famille des Céphaloziellacées. *Mém. Soc. Bot. France* 29: 1-89. (Cephaloziella Lorenziana Douin, n. sp. p. 70)
78. Dudley, W. R. 1886. Charles Christopher Frost. *J. Mycol.* 2: 114-118.
79. Dunham, E. M. 1916. How to know the mosses without a lens. *The Bryologist* 19: 19-23.
80. _____. 1916. *How to Know the Mosses.* Boston, Mass.: Houghton Mifflin Co. 287 pp.; 2nd edition. 1951. Boston, Mass.: Mosher Press. 289 pp.
81. Eaton, A. 1824. *A Manual of Botany for the Northern and Middle States of America.* 4th edition. Albany, N.Y.: Websters and Skinners. 539 pp.
82. _____. 1829. *A Manual of Botany for North America.* 5th edition. Albany, N.Y.: Websters and Skinners. 451 pp. (Appendix 3 - Hypnum cooleyanum from Deerfield, Mass., described from dry specimens by H. E. Eaton, Adjunct Professor in Rensselaer School)

83. Eggleston, W. W. 1910. Early botanists visiting Vermont. Abstract of paper read at winter meeting. *Bull. Vermont Bot. Club* 5: 10-14.
84. _____. 1922. Notes on the early botanical explorations of Willoughby Lake. *Joint Bull. Vermont Bot. Bird Clubs* 8: 23-25.
85. _____. 1926. The early botanists of the Green Mountains, with an account of C. C. Frost's visit to Mt. Mansfield and Smuggler's Notch, August 12, 1851. *Joint Bull. Bot. Bird Clubs* 11: 19-28.
86. Evans, A. W. 1923. Second revised list of New England hepatics. *Rhodora* 25: 192-199.
87. _____. and R. Meyrowitz. 1926. *Catalogue of the Lichens of Connecticut.* Connecticut Geological and Natural History Survey Bull. 37. Hartford, Conn. 56 pp.
88. _____. and G. E. Nichols. 1908. *The Bryophytes of Connecticut.* Connecticut Geological and Natural History Survey Bull. 11. Hartford, Conn. 203 pp. (history of bryology in Connecticut pp. 25-29)
89. Farlow, W. G. ca. 1880-1900. Travelling kit of New England mosses and hepatics. (Mostly N. H., Mass. and a few Vt. specimens - preserved at the Farlow Herbarium)
90. _____. 1884. Notes on the cryptogamic flora of the White Mountains. *Appalachia* 3: 232-251.
91. _____. 1917. Last will and testament. 14 March 1917. (copy preserved at the Farlow Library)
92. Fernald, M. L. 1942. Incidents of field work with J. Franklin Collins. *Rhodora* 44: 98-152. (portrait)
93. Fink, B. 1907. A memoir of Clara E. Cummings. *The Bryologist* 10: 37-41. (portrait)
94. Flowers, S. 1947. A visit with Dr. Grout. *The Bryologist* 50: 208-212.
95. Frost, C. C. 1874. Catalogue of the flowerless plants of northern New England. *Arch. Sci. & Trans. Orleans County Soc. Nat. Sci.* 1 (8,9). (not seen)
96. Goodale, G. L. 1893. Sereno Watson with a list of Sereno Watson's botanical writings by J. A. Allen. *Proc. Amer. Acad. Arts* 27: 403-416.
97. Goodale, R. L. 1975. History of botanical collections [in Essex County, Mass.] In S. K. Harris, *The Flora of Essex County, Massachusetts.* Salem, Mass.: Peabody Museum of Salem. 269 pp. pp.5-7.
98. Goodwin, _. 1865. Obituary notice of the Rev. Prof. Edward Hitchcock, D.D., LL.D. *Proc. Amer. Phil. Soc.*

9: 443-449.
99. Gray, A. 1849. William Oakes. *Amer. J. Sci. Arts* ii 7: 138-142.
100. _____. 1879. Stephen T. Olney. *Amer. J. Sci. Arts* iii 17: 179-180.
101. _____. 1879. James Watson Robbins. *Amer. J. Sci. Arts* iii, 17: 180.
102. Greenwood, H. E. 1927. A contribution to the cryptogamic flora of Mt. Desert. *Maine Naturalist* 7: 111-120. (reprinted in *Bull. Mass. Audubon Soc.* 11(7): 1-5 (1927))
103. _____. 1952. Dissertation on mosses. *Nature Outlook* 10(2): 6-11.
104. Grout, A. J. 1898. *A List of the Mosses of Vermont with Analytical Keys to the Genera and Species. Contributions to the Botany of Vermont I.* Burlington, Vt.: University of Vermont Botany Department. 39 pp.
105. _____. 1898. *Supplement to the List of Mosses Growing in the State of Vermont. Contributions to the Botany of Vermont II.* Burlington, Vt.: University of Vermont Botany Department. 4 pp.
106. _____. 1928-1940. *Moss Flora of North America, North of Mexico.* Newfane, Vt.: The Author. 3 volumes (4 parts in each volume)
107. _____. 1947. How the Sullivant Moss Society and The Bryologist began. *The Bryologist* 50: 1-3.
108. Hale, Jr., M. E. 1960. Alexander W. Evans and lichenology. *The Bryologist* 63: 81-83.
109. _____. 1960. Alexander William Evans. *Bull. Torrey Bot. Club* 87: 354-356.
110. Halling, R. 1983. Charles Frost, Boletologist from Brattleboro. *Bull. Boston Mycol. Club* 38 (3): 7-9 (October 1983). (portrait)
111. _____. 1983. Boletes described by Charles C. Frost. *Mycologia* 75: 70-92. (portrait)
112. Harbison, D. 1980. Private communication. (Friend of Ethel P. Hutchinson)
113. Haring, I. M. 1947. Abel Joel Grout - Vermonter and Bryologist. *J. New York Bot. Gard.* 48: 163-165. (portrait)
114. Harris, H. F. 1945. The correspondence of William G. Farlow during his student days at Strasbourg. *Farlowia* 2: 9-37. (portrait)
115. Haynes, C. C. 1928. Annie Lorenz - Biographical notice. *The Bryologist* 31: 1-7. (portrait)

116. Hilferty, F. J. 1960. Mosses of Massachusetts. A county catalogue with annotations. *Rhodora* 62: 145-173.

117. _____. 1980. Private communication. (Dean of the Graduate School, Bridgewater State College, Bridgewater, Mass.)

118. Hitchcock, E. 1829. *A Catalogue of Plants Growing without Cultivation in the Vicinity of Amherst College.* Amherst, Mass.: J. S. and C. Adams and Co. 64 pp. (bryophytes pp. 50-54)

119. _____. 1833. *Catalogue of Plants Growing without Cultivation* [in Massachusetts]. 52 pp. (copy of pp. 599-651 in *Rep. Geol. Min. Bot. and Zool. of Massachusetts.* 1833 (first edition); bryophytes pp. 638-641) [no data in this copy on the date and place of publication of this reprint]. (* Probably the first plant catalogue arranged in the natural order published in America.)

120. _____. 1835. *Catalogue of the Animals and Plants of Massachusetts.* Amherst, Mass.: J. S. and C. Adams. 142 pp. (bryophytes pp. 120-123) (reprinted from *Report on the Geology, Botany and Zoology of Massachusetts.* second edition)

121. _____. 1863. *Reminiscences of Amherst College.* Northampton, Mass.: Bridgman and Childs. (excerpts in Canad. Naturalist & Quart. J. Sci. 9: 337-354 (1864); quotation on p. 347)

122. Holzinger, J. M. 1916. Book review - How to Know the Mosses. *The Bryologist* 19: 74-75.

123. Horsford, M. 1918. Dr. Cyrus Guernsey Pringle. *Vermonter* 23: 12-14.

124. Howard, R. A. 1973. A partial history of the New England Botanical Club. *Rhodora* 75: 493-516. (includes brief biographical sketches of charter members W. G. Farlow, E. Faxon, G. G. Kennedy, and E. L. Rand)

125. Howe, C. D. 1899. *A Preliminary List of the Hepaticae of Vermont. Contributions to the Botany of Vermont III.* Burlington, Vt.: University of Vermont Botany Dept. 10 pp.

126. Howe, M. A. 1880. The Hepaticae and Anthocerotes of California. *Mem. Torrey Bot. Club* 7: 1-208, plates 88-122.

127. Humphrey, H. B. 1961. *Makers of North American Botany.* New York, N.Y.: The Ronald Press. 265 pp. (includes D. C. Eaton pp. 78-79; W. G. Farlow pp. 83-85; G. E. Nichols pp. 188-189; S. T. Olney pp.

192-193)
128. Humphrey, J. E. 1896. Botany and botanists in New England. *New England Mag.* 14: 27-44. (includes D. C. Eaton pp. 42-43 (portrait); C. C. Frost p. 42; E. Hitchcock pp. 36-37 (portrait); S. T. Olney p. 42; J. L. Russell p. 41 (portrait))
129. Hutchinson, E. P. 1937-1966. Personal scrapbook. (property of Anna M. Reid, Lexington, Mass.)
130. _____. 1954. Sectioning methods for moss leaves. *The Bryologist* 57: 175-176.
131. Jackson, C. L. 1922. William Gilson Farlow (1844-1919). *Proc. Amer. Acad. Arts* 57: 484-491.
132. Johnson, C. W. 1930. Obituary - Charles J. Maynard. *Nautilus* 43: 101-103.
133. Jones, D. A. 1925. Edward Blanchard Chamberlain. *Rep. Brit. Bryol. Soc.* 1(3): 181.
134. Kennedy, G. G. 1899. A new moss from Mt. Desert Island. *Rhodora* 1: 78-80, plate 5. [Pottia randii Kenn. [= Desmatodon randii (Kenn.) Laz.]]
135. _____. 1900. Edwin Faxon. *Rhodora* 2: 107-111. (portrait)
136. _____. 1904. Flora of Willoughby, Vermont. *Rhodora* 6: 93-134, plates 54-56.
137. _____. and J. F. Collins. 1901. Bryophytes of Mt. Katahdin. *Rhodora* 3: 177-181.
138. Knowlton, C. H. 1925. Edward Blanchard Chamberlain. *Rhodora* 27: 73-76.
139. Lane, E. E. 1913. French, Mrs. Sarah E. (Smith). Newspaper clipping in files of Waltham, Mass., Public Library.
140. Lanjouw, J. and F. A. Stafleu. 1954. *Index Herbariorum Part II(1) - Collectors.* Utrecht, Neth.: IBPTN. 174 pp. p. 68.
141. Lesley, J.P. 1877. Memoir of Edward Hitchcock 1793-1864. *Biog. Mem. Nat. Acad. Sci.* 1: 113-134.
142. Linder, D. H. 1945. In honor of William Gilson Farlow. *Farlowia* 2: 1-7. [Volume 2(1) was the anniversary number commemorating the one hundredth birthday of William Gilson Farlow (1844-1944)]
143. Lorenz, A. 1896. The flora of our high school grounds. *Hartford High School Chronicle 1896*: 6-7. (not seen)
144. Love, D. V. 1980. Personal communication. (Acting Dean, Faculty of Forestry, University of Toronto)
145. Lutz, H. J. 1939. Obituary - George Elwood Nichols. *Amer. J. Sci.* 237: 609-610.

146. May, J. B. 1963. The seven horizons of a bird watcher. Part II. *Massachusetts Audubon* 47: 128-135. (portrait of C. J. Maynard)
147. Maynard, C. J. 1905. *Methods in Moss Study in Twelve Lessons.* West Newton, Mass.: The Author. 128 pp.
148. Merrill, G. P. 1906. Contributions to the history of American geology. *Rep. U. S. Nat. Mus. 1904*: 189-715. (E. Hitchcock pp. 307-315, 700. (portrait))
149. Morse, A. 1857. *The Genealogy of the Descendants of Several Ancient Puritans by the names of Adams, Bullard, Holbrook, Rockwood, Sanger, Wood, Grout, Goulding and Twitchell.* Boston, Mass.: The Author. Grout family pp. [135]-195, plus supplements.
150. Murrill, W. A. 1908. Notes on the life and work of Charles C. Frost. *Torreya* 8: 197-200.
151. Nichols, G. E. 1910. Notes on Connecticut Mosses - I. *Rhodora* 12: 146-154; 1911. II. ibid. 13: 40-46; 1912. III. ibid. 14: 45-52; 1913. IV. ibid. 15: 3-13.
152. _____. 1914. Oscar Dana Allen. *The Bryologist* 17: 30.
153. _____. 1938. Alexander William Evans, hepaticologist. *Ann. Bryol.* 11: 1-5. (portrait)
154. Norton, A. H. 1926. Edward Blanchard Chamberlain. *Maine Naturalist* 5: 100-105. (portrait)
155. Oakes, W. (edited by W. Deane). _____. *Extracts from the Letters of William Oakes to James Watson Robbins.* Manuscript in the Gray Herbarium Library, Harvard University. (55 letters (1827-1847) plus 10 page biography of W. Oakes by W. Deane)
156. _____. 1842. Botany of Vermont. Chapter VII pp. 173-221 in Z. Thompson. *Natural History of Vermont.* Burlington, Vt.: The Author. 224 pp. plus Appendix 66 pp. (1853).
157. _____. 1847. Notice on some mosses of New England. *Mag. Hort. Bot.* 13: 171-174.
158. _____. 1848. *Scenery of the White Mountains, with Sixteen Plates from the Drawings of Isaac Sprague.* Boston, Mass.: W. Crosby and H. P. Nichols. pp. not numbered.
159. Pease, A. S. 1964. *A Flora of Northern New Hampshire.* Cambridge, Mass.: New England Botanical Club. 278 pp. p. 39.
160. Pitcher, G. 1980. Private communication. (relative, by marriage, of Ethel P. Hutchinson)
161. Porter, J. W. 1878. *A Genealogy of the Descendants of*

Richard Porter... Bangor, Maine: The Author. 343 pp. pp. 51, 81, 82.

162. Pringle, C. G. 1897. Reminiscences of botanical rambles in Vermont. *Bull. Torrey Bot. Club* 24: 350-357. (Address delivered before the Vermont Botanical Club. Reprinted from the *Burlington* [Vt.] *Daily Free Press,* 9 Feb. 1897.)

163. _____. 1918. *The Record of a Quaker Conscience - Cyrus Pringle's Diary.* New York, N.Y.: Macmillan. 93 pp.

164. Rand, E. L. (editor). 1888. *Champlain Society - A Preliminary List of the Phaenogams and Vascular Cryptogams of Mt. Desert Island, Maine.* Cambridge, Mass. (a copy of the original manuscript in Gray Herbarium Library)

165. _____. (editor). 1889. *Champlain Society - First Supplement to the Preliminary List of the Phaenogams and Vascular Cryptogams of Mt. Desert Island, Maine.* Cambridge, Mass. 6 pp. (a copy of the original manuscript in the Gray Herbarium Library)

166. _____. (editor). 1890. *Champlain Society - Second Annual Supplement to the Preliminary List of the Phaenogams and Vascular Cryptogams of Mt. Desert Island, Maine.* Cambridge, Mass. 7 pp. plus list of bryophytes. (a copy of the original manuscript in the Gray Herbarium Library)

167. _____. (editor). 1891. *Champlain Society - Third Annual Supplement to the Preliminary List of the Phaenogams and Vascular Cryptogams of Mt. Desert Island, Maine.* Cambridge, Mass. 10 pp. (a copy of the original manuscript in the Gray Herbarium library)

168. _____. (editor). 1892. *Fourth Annual Supplement to the Preliminary List of the Phaenogams and Vascular Cryptogams of Mt. Desert Island, Maine.* 7 pp. (a copy of the original manuscript in the Gray Herbarium Library)

169. _____. and J. H. Redfield. 1894. *A Preliminary Catalogue of the Plants Growing on Mount Desert and the Adjacent Islands.* Cambridge, Mass.: John Wilson and Son - University Press. 286 pp.

170. Redfearn, Jr., P. L. (compiler). 1965. Members of the American Bryological Society - 1965. *The Bryologist* 68: 255-264.

171. Reeder, J. R. 1960. Alexander William Evans. *Taxon* 9: 168-169. (portrait)

172. Richardson, W. L. 1914. *Harvard College - The Class of*

1864. Secretary's Report No. 8 - 1864-1914. Boston, Mass.: Printed for the Class. 198 pp. pp. 93-95 and frontispiece.

173. Riddle, L. W. 1920. William Gilson Farlow. *Rhodora* 22: 1-16. (portrait)

174. Robinson, B. L. 1904. James Lawrence Bennett. *Rhodora* 6: 146-147.

175. _____. 1925. Edward Lothrop Rand. *Rhodora* 27: 17-27. (portrait)

176. Robinson, J. 1880. *The Flora of Essex County, Massachusetts.* Salem, Mass.: Essex Institute. 22 pp. (Sketch of some of the early botanists. pp. 19-23. W. Oakes pp. 22-23; J. L. Russell pp. 24-25)

177. Rodgers, III, A. D. 1940. *Noble Fellow - William Starling Sullivant.* New York, N.Y.: G. P. Putnam's Sons. 361 pp. (W. Oakes pp. 136, 157, 161, 173, 190, 224, 226-227)

178. Rudolph, E. D. 1969. Bryology and Lichenology. pp. 89-96 in J. Ewan. *A Short History of Botany in the United States.* New York: Hafner Publishing Co. 174 pp.

179. Russell, J. L. 1839. Two new species of Musci. *J. Essex County Nat. Hist. Soc.* 1(2): 92.

180. _____. 1845. Musci of eastern Massachusetts. *Boston J. Nat. Hist.* 5: 172-188.

181. _____. 1848. Review of "A Manual of the Botany of the Northern United States,..." by Asa Gray. *Mag. Hort. Bot.* 14: 313-319. (bryophytes p. 315)

182. S_____, J. H. 1895. Birds and bird men. *Observer* 6: 193.

183. Sargent, C. S. 1892. *The Silva of North America.* Boston, Mass.: Houghton Mifflin and Co. Volume 3. 141 pp. p. 47.

184. Sayre, G. 1971. Cryptogamae exsiccatae - an annotated bibliography of published exsiccatae of algae, lichenes, hepaticae, and musci. IV. Bryophyta. *Mem. New York Bot. Gard.* 19: 175-276. (D. C. Eaton and E. Faxon p. 196; E. Faxon p. 198; J. A. Allen p. 176)

185. _____. 1974. Recent developments at the Farlow. *Taxon* 23: 215-216.

186. _____. 1975. Cryptogamae exsiccatae - an annotated bibliography of algae, lichenes, hepaticae, and musci. V. Unpublished exsiccatae I. Collectors. *Mem. New York Bot. Gard.* 19: 277-423.

187. _____. 1977. Authors of names of bryophytes and the present location of their herbaria. *The Bryologist*

80: 502-521. (A. L. Andrews; E. B. Chamberlain; D.C. Eaton; A. W. Evans; E. Faxon; A. J. Grout; G. E. Nichols; J. L. Russell)
188. Schnooberger, I 1944. Moss Rock Cabin. *The Bryologist* 50: 213-217.
189. Schuster, R. M. 1960. Alexander W. Evans - an appreciation. *The Bryologist* 63: 73-81 (portrait)
190. Setchell, W. A. 1895. Daniel Cady Eaton. *Bull. Torrey Bot. Club* 22: 341-351. (portrait)
191. _____. 1927. Biographic memoir of William Gilson Farlow 1844-1919. *Mem. Natl. Acad. Sci.* 21: 4th memoir. Washington, D.C.: U. S. Govt. Printing Office. 22 pp. (portrait)
192. _____. 1938. *Biographic memoir of Marshall Avery Howe 1867-1936.* Washington, D.C.: Natl. Acad. Sci. (reprint pp. 243-269)
193. Sherrard, E. M. 1955. Bryophytes of Alaska. I. Some mosses from the northern slope of the Brooks Range. *The Bryologist* 58: 225-236.
194. _____. 1957. Bryophytes of Alaska. II. Additions to the mosses and hepatics of the Mt. Mc Kinley Region. *The Bryologist* 60: 310-325.
195. _____. 1980. Private communication. (Friend of Ethel P. Hutchinson)
196. Smith, A. M. 1904. James Lawrence Bennett, 1832-1904. *The Bryologist* 7: 79.
197. _____. 1917. The early history of The Bryologist and the Sullivant Moss Society. *The Bryologist* 20: 1-8.
198. Snell, W. H. 1942. J. Franklin Collins. *Rhodora* 44: 93-97.
199. _____. and A. M. Waterman. 1941. James Franklin Collins. *Phytopathology* 31: 475-477. (portrait)
200. Steere, W. C. 1939. George Elwood Nichols, 1882-1939. *The Bryologist* 42: 137-140. (portrait)
201. _____. 1940. George Elwood Nichols. *Chron. Bot.* 6: 164.
202. _____. 1948. Abel Joel Grout. (1867-1947). *The Bryologist* 51: 201-212.
203. _____. 1962. Albert LeRoy Andrews, 1878-1961. *The Bryologist* 65: 25-37. (portrait)
204. _____. 1977. North American muscology and muscologists - a brief history. *Bot. Rev. (Lancaster)* 43: 285-343. (A. L. Andrews pp. 329-330; A. J. Grout pp. 311-322 (portrait); G. E. Nichols pp. 330-332)
205. Stotler, R. E. 1984. Evans - A bryological / lichenological interconnection. *Evansia* 1(1): 2-3.

206. Thaxter, R. 1919. William Gilson Farlow. *Harvard Graduates Mag.* Dec. 1919. pp. 269-277. (reprinted in *Amer. J. Sci.* iv 49: 87-95 (1920))
207. _____. William Gilson Farlow. *Bot. Gaz. (Crawfordsville)* 69: 83-87. (portrait)
208. _____., W. J. V. Osterhut, and T. W. Richards. 1919. Minute on the life and services of Professor William Gilson Farlow. Records of Faculty of Arts and Sciences [Harvard University]. 2 Dec. 1919. (reprinted in *Harvard University Gazette* 15: 60-61. 13 Dec.1919)
209. Thomson, J. W. 1957. The 1956 foray of the American Bryological Society. *The Bryologist* 60: 39-42.
210. Tuckerman, E. and C. C. Frost. 1875. *A Catalogue of Plants Growing without Cultivation within thirty Miles of Amherst College.* Amherst, Mass.: Edwin Nelson. 98 pp.
211. W[akefield], E. M. 1919. William Gilson Farlow. *Kew Bull. Misc. Inf.* 9: 388-390.
212. [Waltham Botany Club.] 1883. *A Partial List of the Native Flora of Waltham, Massachusetts.* Waltham, Mass.: Edward B. Baker. 35 pp. (Lists of grasses, mosses, and lichens were contributed by Mrs. Sarah E. French.)
213. Warnstorf, C. 1890. Contributions to the knowledge of North American Sphagna. *Bot. Gaz. (Crawfordsville)* 15: Part I pp. 127-140; Part II pp. 189-198; Part III pp. 217-227; Part IV 242-255.
214. Weatherby, C. A. 1927. Miss Annie Lorenz. *Joint Bull. Vermont Bot. Bird Clubs* 12: 45-46.
215. Weber, W. A. (compiler). 1963. Members of the American Bryological Society. *The Bryologist* 66: 241-249.
216. Wells, W. L. 1913. Obituary - Oscar Dana Allen. *Amer. J. Sci.* iv 35: 560.
217. Wetherbee, D. K. 1980. *Natural History of Massachusetts.* New Salem, Mass.: Hop Brook Community. 439 pp. pp. 13-14, 120-121.
218. Wheatland, H. 1862. William Oakes. *Proc. Essex Inst.* 2 (1856-1860): 26.
219. Whiting, S. F. et al. 1907. Faculty Science Club remembrance [Clara E. Cummings]. *College News* [Wellesley College, Wellesley, Mass.] 6(16) 6 Feb. 1907. pp. 1, 7. (copy in Farlow Herbarium and Reference Library)
220. Williams, E. F. 1919. George Golding Kennedy. *Rhodora* 21: 25-35.
221. Williams, S. W. 1849. Report on the indigenous medical

botany of Massachusetts. *Trans. Amer. Med. Assoc.* 2: 863-927. (not seen - quoted on p. 14 of Ref. 217)

222. Williamsiana Collection. Williams College, Williamstown, Mass.

223. Willson, E. B. 1874. Memoir of John Lewis Russell. *Essex Inst. Hist. Coll.* 12(3). Reprint 16 pp.

224. Wilson, J. G. and J. Fiske (editors). 1888-1889. *Appleton's Cyclopedia of American Biography.* New York, N.Y.: D. Appleton and Co. 6 volumes. (O. D. Allen I. p. 54; W. G. Farlow I. p. 400; C. C. Frost II. p. 555; E. Hitchcock III. pp. 216-217 (portrait))

225. Zander, R. H. 1977. Portraits of American bryologists and lichenologists in The Bryologist. *The Bryologist* 80: 559. (A. L. Andrews, E. B. Chamberlain, C. C. Cummings, A. W. Evans, A. J. Grout, A. Lorenz, G. E. Nichols)

226. _____. 1978. Portraits of American bryologists and lichenologists II. *The Bryologist* 81: 188. (D. C. Eaton); _____. III. ibid. 82: 511. (G. E. Nichols, J. L. Russell)

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